VOLUME I

TRANSCRIPT OF RECORD

Supreme Court of the United States

OCTOBER TERM, 1961

No. 304

CONTINENTAL ORE COMPANY, ET AL.,
PETITIONERS,

vs.

UNION CARBIDE AND CARBON
CORPORATION, ET AL.

ON WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

PETITION FOR CERTIORARI FILED AUGUST 11, 1961
CERTIORARI GRANTED OCTOBER 23, 1961

No. 16149

United States
Court of Appeals
for the Ninth Circuit

CONTINENTAL ORE COMPANY, a Partnership, and HENRY J. LEIR, ERNA D. LEIR, LINA SCHLOSS, as Individuals and as partners under the trade name and style of CONTINENTAL ORE COMPANY,

Appellants,

vs.

UNION CARBIDE AND CARBON CORPORATION; UNITED STATES VANADIUM CORPORATION; ELECTRO METALLURGICAL COMPANY; ELECTRA METALLURGICAL SALES CORPORATION; ELECTRO METALLURGICAL COMPANY OF CANADA, LIMITED; VANADIUM CORPORATION OF AMERICA,

Appellees.

Transcript of Record

In Seven Volumes

VOLUME I.

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Appeal from the United States District Court
for the Northern District of California.
Southern Division

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[Clerk's Note: When deemed likely to be of an important nature, errors or doubtful matters appearing in the original certified record are printed literally in italic; and, likewise, cancelled matter appearing in the original certified record is printed and cancelled herein accordingly. When possible, an omission from the text is indicated by printing in italic the two words between which the omission seems to occur.]

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2-N—Letter, 3/31/44, Leir to Blanding ... 1798
2-O—Letter, 8/21/41, Masters to Bransome 1838
2-P—Memo of State Dept. "Vanadium Directive No. 86" 1865-1867
Exceptions to Instructions 1993, 2039
Instructions of the Court 2014
Motion for Directed Verdict 1989
Verdict 2051

Witnesses for Plaintiffs:
Burwell, Blair
—direct (Alioto) 135, 163, 229, 300
—cross (Archer) 328, 367, 434, 483
—cross (Holland) 490
—redirect (Alioto) 542, 552, 623
—recross (Archer) 604

Transcript of Proceedings—(Continued):
Witnesses for Plaintiffs—(Continued):
Leir, Henry J.
—direct (Alioto) 1031, 1095
—cross (Holland) 1114, 1158
—cross (Archer) 1198, 1204
—redirect (Alioto) 1245
Nisley, Frank
—direct (Alioto) 633
—cross (Archer) 677, 694
—cross (Holland) 743
—redirect (Alioto) 744, 754, 774
—recross (Archer) 765
Vance, Lawrence L.
—direct (Alioto) 1251
—cross (Archer) 1266
—redirect (Alioto) 1270
Wolf, Martin
—direct (Alioto) 784, 840
—cross (Archer) 870, 906, 962
—cross (Holland) 1000
—redirect (Alioto) 1012, 1029
—recross (Archer) 1027
—recross (Holland) 1028
Witnesses for Defendants:
Bayer, William R.
—direct (Holland) 1271
—cross (Alioto) 1295, 1321
—cross (Archer) 1362
—recross (Alioto) 1362

Transcript of Proceedings—(Continued):
Witnesses for Defendants—(Continued):

Bigler, Hayward L.
—direct (Holland) 1692, 1701
—cross (Alioto) 1729, 1781
—redirect (Holland) 1806
—recross (Alioto) 1799

Bransome, Edwin D.
—direct (Holland) 1861
—cross (Alioto) 1877, 1937

Colvin, William H.
—direct (Archer) 1672
—cross (Alioto) 1682
—cross (Holland) 1689

Du Tot, Stuart C.
—direct (Archer) 1662
—cross (Alioto) 1666

Emigh, G. Donald
—direct (Archer) 1604
—cross (Alioto) 1615

Gibbons, Patrick J.
—direct (Holland) 1823
—cross (Alioto) 1843, 1847

Hill, John W.
—direct (Archer) 1535, 1544
—cross (Alioto) 1555
—cross (Holland) 1585
—redirect (Archer) 1589
—recross (Alioto) 1591

Transcript of Proceedings—(Continued):
Witnesses for Defendants—(Continued):
Holmes, Charles M.
—direct (Archer) 1596
—cross (Alioto) 1601
—recalled, cross (Alioto) 1625, 1634
—redirect (Archer) 1658
—recross (Alioto) 1660
Kett, Frederick F.
—direct (Holland) 1806
—cross (Alioto) 1814
—redirect (Holland) 1821
Laub, Gustav
—direct (Holland) 1965
—cross (Alioto) 1975
Mitchell, John
—direct (Archer) 1523
—cross (Alioto) 1532
Priestley, William John
—direct (Archer) 1475, 1480
—cross (Alioto) 1487
Remmers, Walter Edward
—direct (Archer) 1368, 1387
—cross (Alioto) 1394
Verdict 104

	Original	Print
Proceedings in the United States Court of Appeals for the Ninth Circuit	2564a	2565
Minute entry of argument and submission	2564a	2565
Minute entry of order directing filing of opinion and filing and recording of judgment	2565	2565
Opinion, Magruder, *J.*	2566	2566
Judgment	2583	2583
Minute entry of order denying petition for rehearing	2584	2584
Clerk's certificate (omitted in printing)	2585	2584
Order allowing certiorari	2586	2584

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San Francisco, California,

For Appellees.

In the District Court of the United States, Northern District of California, Southern Division

No. 29008H

CONTINENTAL ORE COMPANY, a partnership; and HENRY J. LEIR, ERNA D. LEIR, LINA SCHLOSS, as individuals and as partners under the trade name and style, CONTINENTAL ORE COMPANY, Plaintiffs,

vs.

UNION CARBIDE AND CARBON CORPORATION, UNITED STATES VANADIUM CORPORATION, ELECTRO METALLURGICAL COMPANY, ELECTRO METALLURGICAL SALES CORPORATION, ELECTRO METALLURGICAL COMPANY OF CANADA, LIMITED, VANADIUM CORPORATION OF AMERICA, DOE ONE, DOE TWO, DOE THREE, DOE FOUR, DOE FIVE, DOE SIX, and DOE SEVEN, Defendants.

COMPLAINT

The above-named plaintiffs bring this action against the above-named defendants, and for claim of relief, they complain and allege as follows:

I.

Jurisdiction and Venue

1. This complaint is filed and these proceedings are instituted against the above-named defendants

under Section 15 of Title 15 U.S.C.A., being a part of the Act of Congress of July 2, 1890, c.649, 26 Stat. 209, as amended, entitled "An Act to Protect Trade and Commerce Against Unlawful Restraints and Monopolies," commonly known as the Sherman Act and the Clayton Act.

2. Each of the corporate defendants transacts business, maintains offices and may be found in San Francisco, California.

II.

Description of the Parties

3. The Continental Ore Company is a partnership composed of Henry J. Leir, Erna D. Leir and Lina Schloss, all of New York City, New York. It is successor in interest to the Continental Ore Corporation which was incorporated under the laws of the State of New York on June 16, 1939. On May 5, 1942, Henry J. Leir, Erna D. Leir and Lina Schloss, the sole stockholders in Continental Ore Corporation, formed a partnership under the name of Continental Ore Company. On October 10, 1942, the said partnership acquired all of the assets and assumed all of the liabilities of the Continental Ore Corporation, which was dissolved on the same date. Continental Ore Corporation and its successor partnership, Continental Ore Company, hereinafter referred to as "Continental," have been engaged in the business of manufacturing and distributing ferro-alloys and of distributing non-ferrous minerals, ores and metals.

4. Union Carbide and Carbon Corporation (here-

inafter referred to as "Union Carbide") is hereby made a defendant herein. Union Carbide is a corporation organized and existing under the laws of the State of New York, with its principal place of business at 30 East 42nd Street, New York, New York.

5. United States Vanadium Corporation (hereinafter referred to as "U.S.V.") is hereby made a defendant herein. U.S.V. is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business at 30 East 42nd Street, New York, New York. All of the stock of U.S.V. is, and at all times hereinafter mentioned has been, owned by the defendant Union Carbide.

6. Electro Metallurgical Company (hereinafter referred to as "Electromet") is hereby made a defendant herein. Electromet is a corporation organized and existing under the laws of the State of West Virginia, with its principal place of business at 30 East 42nd Street, New York, New York. All of the stock of Electromet is, and at all times hereinafter mentioned has been, owned by the defendant Union Carbide.

7. Electro Metallurgical Sales Corporation (hereinafter referred to as "Electromet Sales") is hereby made a defendant herein. Up to March 14, 1949, Electromet Sales was a corporation organized and existing under the laws of the State of New York, with its principal place of business at 30 East 42nd Street, New York, New York. All of the stock of Electromet Sales was owned by the defendant Union Carbide. On March 14, 1949, Electromet Sales merged into Union Carbide.

8. Electro Metallurgical Company of Canada, Limited (hereinafter referred to as "Electromet of Canada") is hereby made a defendant herein. Electromet of Canada is a corporation organized and existing under the laws of the Dominion of Canada, and maintains offices at 30 East 42nd Street, New York, New York. All of the stock of Electromet of Canada is, and at all times hereinafter mentioned has been, owned by the defendant Union Carbide.

9. Vanadium Corporation of America (hereinafter referred to as "V.C.A.") is hereby made a defendant herein. V.C.A. is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business at 420 Lexington Avenue, New York, New York.

10. The true names or capacities, whether corporate, associate or otherwise, of defendants, Doe One, Doe Two, Doe Three, Doe Four, Doe Five, Doe Six and Doe Seven, are unknown to plaintiff, and plaintiff therefore designates them by such fictitious names, and when their true names are discovered, this complaint will be amended accordingly.

11. Whenever it is hereinafter alleged in this complaint that any defendant corporation did any act or thing, such allegation shall be deemed to mean that the officers, agents, and employees of the said defendant authorized, ordered or did such act or thing for and on behalf of said defendant corporation while actively engaged in the management, direction, control and operation of the business affairs of said corporation.

III.

Nature of the Trade and Commerce

A. The Commodity and Its Uses

12. Vanadium is a metallic element which is principally used as an alloy in steel. The addition of vanadium to steel increases the tensile and torsional strength of the steel and imparts toughness thereto. Vanadium steels are used in the manufacture of high-speed tools, armor plate, locomotive axles, drills, piston rods, transmission shafts, gun barrels, automobile parts, steel castings, springs, bolts, nuts, tubing, airplane propellers, crankshafts, and various other steel products. Minor quantities of vanadium are used in the chemical industry as a catalyst, in the ceramics industry, and for other industrial purposes.

13. The largest consumers of vanadium in the United States are steel manufacturers, and most of the vanadium used in steel is in the form of ferrovanadium, which is a mixture of iron and vanadium in which the vanadium content ranges from 35 per cent to 80 per cent.

14. The principal source of vanadium is vanadium-bearing ore, although minor quantities of vanadium have been produced from soot and flue dust collected from marine boilers burning Venezuelan and Mexican oils. During the period from 1933 to June 1, 1946, a major part of all vanadium produced in the United States was produced from vanadium ore bodies lying in the western part of the State of Colorado, the eastern part of the State

of Utah, and the northern parts of the States of New Mexico and Arizona. A substantial part of all vanadium consumed in the United States was produced in this country during said period from vanadium-bearing ores and concentrates imported into this country from Peru. Some vanadium was produced as a by-product of mining operations conducted primarily for other minerals.

15. The vanadium contained in vanadium-bearing ores and other vanadium-bearing materials is extracted therefrom in the form of vanadium oxide, which is a material containing a chemical mixture of vanadium and oxygen, combined with a minor amount of sodium and other impurities. Vanadium oxide is converted to ferro-vanadium in electric furnaces or through an alumino-thermic process. Most vanadium oxide produced in this country is converted to ferro-vanadium.

16. Vanadium-bearing ore mined in the States of Colorado, Utah, Arizona and New Mexico has been sold and shipped in interstate commerce to the defendants in Colorado and other states of the United States. Vanadium oxide produced in the States of Colorado and Pennsylvania has been sold and shipped by the defendants in interstate commerce to the States of New York, Pennsylvania, Ohio, West Virginia and Illinois and other States of the United States, and in foreign commerce to purchasers in foreign nations. Ferro-vanadium produced in New York, Pennsylvania, Ohio, West Virginia, and Illinois has been sold and shipped by the defendants in interstate commerce to steel produc-

ers and other purchasers in numerous states of the United States other than the state in which the same was produced and in foreign commerce to foreign nations.

B. Background of the Industry

I. V.C.A.

17. In or about 1911, V.C.A. entered the vanadium business by the purchase of vanadium-bearing ore bodies in the Republic of Peru and a ferro-vanadium plant at Bridgeville, Pennsylvania. In addition to its Peruvian deposits, V.C.A. acquired, prior to the year 1931, extensive vanadium ore deposits and a vanadium oxide mill site in the State of Colorado. V.C.A. has produced vanadium oxide and ferro-vanadium in its plant in Pennsylvania from ores mined in Peru, Colorado, Utah, New Mexico and Arizona and from flue dust, vanadium oxide and other vanadium-bearing materials purchased by V.C.A.

18. Prior to the year 1931, V.C.A. depended almost entirely for a source of vanadium on ores produced from its properties in Peru, which were shipped from Peru to V.C.A.'s ferro-vanadium plant at Bridgeville, Pennsylvania. During the years 1931, 1932 and 1933, V.C.A. made no substantial imports of vanadium-bearing ores from Peru and did not resume importation on any large scale until the year 1937. This cessation of imports was due in part to the imposition by Peru in 1931 of an export tax on vanadium ore and in part to the fact

that during the same year the grade of ore mined in the Peruvian mines of V.C.A. changed to an extent that required the development of new concentration processes. In the year 1939, V.C.A. commenced the mining of vanadium ore in the United States and the production of vanadium oxide therefrom by constructing and operating a vanadium oxide mill in Colorado.

II. Union Carbide and Subsidiaries

19. In 1926, Union Carbide acquired vanadium bearing ore deposits and a vanadium oxide mill near Rifle, Colorado, and a ferro-vanadium plant in Ohio. U.S.V. was organized as a wholly-owned subsidiary of Union Carbide to acquire, develop, and mine vanadium-bearing ore deposits, to purchase ore, and to produce vanadium oxide. In 1927, U.S.V. commenced the production of vanadium oxide at the Rifle mill. In 1936, U.S.V. constructed an additional vanadium oxide mill in Colorado and in 1937 began producing vanadium oxide in that mill.

20. Vanadium oxide produced by U.S.V. in Colorado was shipped for conversion into ferro-vanadium to plants in Ohio, New York, and West Virginia which were operated by Electromet and U.S.V. Ferro-vanadium produced by Electromet and U.S.V. has been transferred to Electromet Sales for sale to purchasers in many states of the United States and foreign countries. Some of the vanadium oxide produced by U.S.V. has been trans-

ferred to Electromet Sales for sale to purchasers in the United States and foreign countries. Union Carbide coordinates the activities of its aforesaid subsidiaries, and participates in the formulation of the policies of said subsidiaries. A major part of all vanadium sold by Electromet Sales has come from vanadium oxide produced in Colorado by U.S.V., although Electromet has produced some vanadium oxide from vanadium-bearing materials purchased from other sources, and both U.S.V. and Electromet have purchased vanadium oxide produced by others.

III. Independent Producers

21. Until about the year 1936, very little, if any, vanadium-bearing ore was mined in the States of Colorado, Utah, Arizona, and New Mexico primarily for its vanadium content, with the exception of that mined by U.S.V. in connection with its vanadium oxide mill at Rifle, Colorado. In the year 1936, independent mine owners and producers in said states commenced the mining of vanadium-bearing ores primarily for their vanadium content. Between 1937 and 1939, U.S.V. and V.C.A. started to purchase vanadium-bearing ores mined by independent producers in the Colorado-Utah area.

22. During the period from 1936 to 1943, inclusive, various small independent vanadium oxide mills produced vanadium oxide in the Colorado-Utah area. Most of the vanadium oxide produced in these oxide mills up to the summer of 1940 was sold in the foreign market. Thereafter, most of the

vanadium oxide produced by independent producers was sold to U.S.V. and V.C.A.

23. During the period from 1929 to the date of the filing of this complaint, Electromet and V.C.A. were the only producers of ferro-vanadium in the United States with the exception of the years 1936, 1937 and 1940 to 1944, when small amounts of ferro-vanadium were produced by other companies including Continental.

C. Control of the Industry

24. During the period from 1933 to the date of the filing of this complaint, Electromet, U.S.V. and V.C.A. produced over 99 per cent of all ferro-vanadium produced in the United States, and during said period, V.C.A. and Electromet Sales sold in excess of 99 per cent of all ferro-vanadium sold and consumed in the United States.

25. During the period from 1933 to the date of the filing of this complaint, V.C.A. and U.S.V. produced over 90 per cent of all vanadium oxide produced in the United States, and during said period Electromet Sales and V.C.A. sold approximately 99 per cent of all the vanadium oxide sold and consumed in the United States.

26. During the period from 1933 to the date of the filing of this complaint, V.C.A. sold approximately two-thirds of all ferro-vanadium and vanadium oxide sold by defendants, and Electromet Sales sold approximately one-third of all said ferro-vanadium and vanadium oxide.

IV.

The Combination and Conspiracy

27. Beginning in or about 1933 and continuing thereafter up to the date of the filing of this complaint, the defendants and others acting in concert with them have violated and are now violating Sections 1 and 2 of the Sherman Act by unlawfully contracting, combining and conspiring to monopolize, monopolizing and attempting to monopolize and by unlawfully contracting, combining and conspiring to restrain trade and commerce among the several states and with foreign nations in ferro-vanadium and vanadium oxide.

28. The said unlawful conspiracy to monopolize, monopoly and attempts to monopolize, contracts, combinations and conspiracies to restrain trade and commerce in the production, sale and distribution of ferro-vanadium and vanadium oxide have consisted and do consist of a continuing agreement and concert of action among the defendants, the substantial term of which agreement and the means of such concert of action being as follows:

(a) That the defendants control and dominate the production of vanadium ore and the production and sale of ferro-vanadium and vanadium oxide by:

(1) Purchasing or acquiring control over substantially all commercially available vanadium-bearing ore deposits in the United States and substantially all vanadium oxide produced by others in the United States;

(2) Refusing to sell vanadium oxide to other pro-

ducers or potential producers of ferro-vanadium in the United States or to purchasers for resale in the United States;

(3) Entering into annual requirement contracts with the principal purchasers of ferro-vanadium in the United States so as to preclude others from securing the business of such purchasers;

(4) Depriving other producers of vanadium oxide of a competitive market for their vanadium oxide.

(b) That defendants eliminate and suppress competition between themselves and with others in the production and sale of vanadium oxide and ferro-vanadium, by:

(1) Apportioning and dividing sales of ferro-vanadium and vanadium oxide in the ratio of approximately two-thirds to V.C.A. and one-third to Electromet Sales;

(2) Assisting each other to maintain their control and domination over the sale of ferro-vanadium and vanadium oxide and their respective percentages of the sales thereof by supplying or helping to provide each other with necessary supplies of vanadium-bearing ore and vanadium oxide to enable them to carry out the allocation and division of sales aforesaid:

(3) Fixing identical prices for the sale of ferro-vanadium and vanadium oxide and for the purchase of vanadium-bearing ore;

(4) Refraining from competing with each other in making purchases of or otherwise acquiring control over vanadium oxide produced by others.

(c) That the defendants agree among themselves to fix prices for the sale of ferro-vanadium and vanadium oxide, and for the purchase of vanadium-bearing ore.

29. To effectuate the aforesaid combination and conspiracy, and as a part thereof, the defendants throughout the period from 1933 to the date of the filing of this complaint, regularly and continuously did the things which they agreed to do, as aforesaid, and more specifically, among others, did the following things:

(a) Agreed that Electromet Sales and U.S.V. would supply V.C.A. with large quantities of vanadium oxide to enable V.C.A. to maintain its position as the largest seller of ferro-vanadium and vanadium oxide in the United States, and that prices for ferro-vanadium and vanadium oxide would be raised. Pursuant to said agreement, the following things, among others, were done:

(1) Electromet Sales, between 1933 and 1939, inclusive, supplied V.C.A. with several million pounds of vanadium oxide at prices substantially below those charged to other purchasers during said period;

(2) Between 1939 and 1942, U.S.V. produced vanadium oxide from ore mined by U.S.V. from V.C.A. ore bodies, and during 1939 and 1940 delivered vanadium oxide to V.C.A. at a cost to V.C.A. below the prices charged for vanadium oxide to other purchasers;

(3) V.C.A. utilized the vanadium oxide obtained from Electromet Sales and U.S.V. to meet orders from its customers and continued to sell approximately two-thirds of all ferro-vanadium and vanadium oxide sold by the defendants to consumers in the United States and foreign countries;

(4) Prices for ferro-vanadium and vanadium oxide to purchasers other than the defendants themselves were increased by the beginning of 1934 and were maintained at the increased levels from that time to the date of the filing of this complaint.

(b) Throughout the period from 1939 to the date of the filing of this complaint, U.S.V. and V.C.A. agreed upon the prices to be paid by them to independent miners for vanadium ore, and purchased vanadium ore at said prices.

V.

Elimination of Continental From Vanadium Industry

30. One of the direct effects proximately caused by the monopolistic practices herein alleged, as intended by defendants, was the elimination from the industry of independent producers and distributors of ferro-vanadium and vanadium oxide. One of the companies so eliminated from the industry was Continental. The acts and practices leading to the restraint upon the trade of Continental were as follows:

31. The plaintiff Henry J. Leir has been engaged in the alloy metal business for a great many years.

In 1933 Henry J. Leir and his wife organized a Luxemburg firm in the alloy metal field which operated under the trade-name and style of "Societé Anonyme Des Minerais," hereinafter called "Minerais." The principal business operations of this firm took place in France and Belgium up to 1939.

32. In January, 1938, plaintiff Henry J. Leir visited the United States and, shortly thereafter, entered into a contract with the Apex Smelting Company of Chicago, hereinafter called "Apex." The contract is dated July 1, 1938 between Minerais and Apex. Under the terms of the said contract, Minerais granted to Apex rights to a secret, high-vanadium content ferro-vanadium process. Net profits were to be divided equally between the contract parties, the contract to run for fourteen years with a provision that Apex should have the right to cancel in the event that in any two successive years it failed to make a net profit from the business of Seven Thousand Five Hundred Dollars ($7,500) a year. At the same time, Apex and Minerais entered into a contract whereby Henry J. Leir agreed to handle the ferro-vanadium sales for Apex on a commission basis and Henry J. Leir further agreed to secure vanadic acid supplies for Apex. In the meantime, as hereinbefore stated, the Leirs had organized the Continental Ore Corporation which became, in place of Henry J. Leir, the exclusive sales agent for Apex throughout the United States except for the states of Indiana, Illinois, Wisconsin and California.

33. By virtue of the monopolization of vanadium-bearing ores and vanadic acid, as hereinbefore alleged, and the refusal of Union Carbide and V.C.A. to sell Apex, Apex was unable to operate profitably for the specific reason that it was unable to obtain vanadic acid, and was thus compelled to cease manufacture of ferro-vanadium. Until Apex and Continental were stopped, Apex produced and Continental distributed substantial quantities of ferro-vanadium. Operations under the contract with Apex extended from the spring of 1940 to the spring of 1942.

34. Continental started to ship vanadium compounds from premises they had rented on Long Island, New York, in August of 1942. It made substantial shipments of ferro-vanadium both in the United States and to Canada from the Long Island location, where it had installed grinding and mixing machinery. Its business in Canada was effectively eliminated by defendants as hereinafter more fully stated. The monopolistic practices of defendants made difficult the purchase of the raw materials by Continental from which to process vanadium compounds, and finally in 1944, Continental discontinued shipping from its Long Island location because the difficulty of securing raw materials rendered it commercially impossible to operate profitably. In their efforts to deprive Continental of access to vanadium-bearing ores and vanadium oxide, the defendants acquired ownership or control of deposits and mills of Continental's suppliers and agreed to and did carry on preemptive buying pro-

grams featuring premium payments to established and potential suppliers of Continental.

35. In the spring of 1944, Continental entered into a contract with Imperial Paper and Color Corporation of Glen Falls, New York, hereinafter called "Imperial," whereby Imperial agreed to process ferro-vanadium and vanadium oxide and Continental agreed to act as sales agent for its entire output, in addition to undertaking to secure the necessary raw materials. At the end of the year 1944, Imperial was compelled to abandon the contract with the consent of Continental because of the inability of Imperial or Continental to secure vanadium oxide or vanadium-bearing ores. Throughout this period of time, Continental had secured orders for all of the ferro-vanadium to be produced by Imperial and/or Apex, but it was unable to fill the said orders because of the inability to secure ferro-vanadium for lack of the raw materials.

36. As a further part of the conspiracy to restrain and monopolize, as hereinbefore alleged, defendants agreed to allocate the Canadian market among themselves and to preclude Continental from serving established Canadian customers and from spreading its sales to other Canadian firms. Throughout the year 1942, Continental shipped to Atlas Steels Limited of Canada, hereinafter called "Atlas," substantial quantities of its vanadic acid under the trade name of Van-Ex and substantial quantities of a high content ferro-vanadium (seventy to eighty per cent vanadium) which it pro-

duced. The product of Continental was preferred by Atlas and other Canadian customers because of its high-vanadium content. The ferro-vanadium produced by V.C.A. and U.S.V. contained only thirty-five to forty per cent vanadium. Continental was eliminated from the Canadian market entirely in 1943 because prior thereto the defendant Electromet of Canada, a wholly owned subsidiary of Union Carbide, had been appointed as purchasing agent of the Metals Controller of Canada in the allocation of ferro-vanadium to Canadian steel firms. The defendant Electromet of Canada, under the direction of Union Carbide, made an agreement with Union Carbide, U.S.V. and V.C.A. to split the allocation of ferro-vanadium between U.S.V. and V.C.A. and to eliminate Continental entirely from the Canadian market.

37. Pursuant to the agreement thus made, Electromet of Canada refused to permit Atlas to purchase from Continental, from which it had contracted to purchase, despite the fact that Atlas demanded to be permitted to make the purchase because of its preference for Continental's product. Instead Atlas and other Canadian customers were compelled because of the agreement between the defendants Union Carbide, U.S.V., V.C.A. and Electromet of Canada to import ferro-vanadium from the United States from either U.S.V. or V.C.A. Atlas and other Canadian customers attempted throughout the year 1943 to secure shipments from Continental but were precluded from doing so by the aforesaid agreement between Electromet of

Canada, Union Carbide, U.S.V. and V.C.A. It was the intent, purpose and effect of the aforesaid agreement between Electromet of Canada, Union Carbide, U.S.V. and V.C.A. to eliminate Continental from the business of distributing ferro-vanadium and vanadium products in Canada.

38. In June of 1943, M. D. Arrouet, an official of one of the defendants, orally informed Continental that it had no place in the vanadium business either in Canada or in the United States. He further informed Continental that it should desist from attempting to conclude pending negotiations for an arrangement with Climax Molybdenum Corporation to manufacture vanadium for Continental's account. The principal business of Climax was molybdenum. Arrouet threatened that if Climax undertook the manufacture of ferro-vanadium for Continental, the defendants would enter the molybdenum industry as a reprisal against Climax.

39. Finally in 1944, Continental was forced to leave the vanadium industry altogether. It could no longer continue to operate profitably because of the dominant position defendants had acquired in the industry by the monopolization of the raw materials; their refusal to sell Continental for processing in its plant or others with which it had contracted, as aforesaid; the elimination of Continental from the Canadian markets; the threats of reprisal for persisting in the industry; the contracts, combination, conspiracy, monopoly and attempts to monopolize, as hereinbefore stated.

VI.

The Effect of the Case of United States v. Union Carbide and Carbon Corporation et al.

40. Under the provisions of Section 16 of Title 15, U.S.C.A., a final judgment rendered in a suit by the United States to the effect that a defendant has violated the antitrust laws shall be prima facie evidence against such defendants in any suit brought by a private party against such defendants under the antitrust laws as to all matters respecting which the said judgment would be an estoppel as between the Government and the defendants.

41. On June 27, 1946, the Grand Jury under the jurisdiction of the District Court of the United States for the District of Colorado returned an indictment against all of the defendants named in this complaint charging them with violations of the Sherman Act by reason of the same contracts, combination, conspiracy and monopoly as charged in this complaint.

42. In May of 1948, the United States Attorney filed an information against all of the defendants named herein charging them with violations of the Sherman Act by reason of the same contracts, combination, conspiracy and monopoly alleged in this complaint.

43. The running of the Statute of Limitations against the plaintiffs herein was suspended by the return of the said indictment and by the filing of the said information from June 27, 1946 to the date of the filing of this complaint in accordance with

the express provisions of Title 15, U.S.C.A., Section 16.

VII

Effects of the Combination, Conspiracy and Monopoly in Restraint of Trade

44. By reason of the aforesaid violations of the antitrust laws, defendants have injured the business of plaintiffs by effectively eliminating them from the vanadium industry; they have suppressed competition and have monopolized the business of mining and processing vanadium-bearing ores, of manufacturing and distributing vanadium compounds; they have eliminated competition among themselves and prevented new competition; they have exacted monopoly profits from consumers of vanadium compounds in the United States and in Canada; the prices of ferro-vanadium and vanadium oxide have been maintained at unlawfully high and artificial levels; the prices paid for vanadium-bearing ore to independent owners and miners in the states of Colorado, Utah, New Mexico and Arizona have been maintained at unlawfully low and artificial levels, except where necessary to engage in a preemptive buying program to prevent the raw materials from being purchased by potential competitors; and they have denied to consumers the benefits of economy and superiority of the vanadium compounds manufactured by Continental.

45. The injury to the business of plaintiffs was directly intended by defendants and was proximately caused by the monopolistic practices herein

alleged. Plaintiffs have lost business; the value of their trade-marks has been diminished; markets and customers which they have obtained in open competition with defendants have been taken away from them; their investments have been lost; the good will attaching to the business of Continental has been impaired—all to the damage of plaintiffs in the sum of Five Hundred Twenty-Eight Thousand Dollars ($528,000).

Wherefore, Plaintiff Prays Judgment As Follows:

1. That summons issue to each of the defendants commanding it to answer the allegations contained in this complaint, and to abide by and perform such orders and decrees as the Court may make in the premises;

2. That plaintiffs receive with interest as damages for the injury to their business the sum of Five Hundred Twenty-Eight Thousand Dollars ($528,000) and that the said sum be trebled to One Million Five Hundred Eighty-Four Thousand Dollars ($1,584,000) and that the Court award reasonable attorneys' fees, all in accordance with Section 4 of the Clayton Act (15 U.S.C.A. 15) in such cases made and provided.

3. That the aforesaid combination and conspiracy, contracts, agreements, arrangements and understandings in restraint of interstate and foreign trade and commerce, conspiracy to monopolize, attempts to monopolize and monopolization of interstate and foreign trade and commerce be adjudged

and decreed to be unlawful, and that the contracts, agreements, arrangements, understandings and practices alleged in this complaint be adjudged and decreed to be in violation of Sections 1 and 2 of the Sherman Act.

4. That the Court adjudge and decree that the defendants have combined and conspired to restrain unreasonably and have conspired to monopolize, attempted to monopolize and have monopolized the interstate and foreign trade and commerce in the mining, processing, manufacturing, distribution and sale of vanadium compounds in violation of Sections 1 and 2 of the Sherman Act.

5. That defendants be ordered to divest themselves of such vanadium or vanadium-bearing ore deposits and ore-processing mills as in the opinion of this Court is deemed necessary to establish competition in the industry.

6. That plaintiffs recover their costs herein.

7. That plaintiffs have such other and further relief as the Court may deem proper.

JOSEPH L. ALIOTO,
Attorney for Plaintiff.

CADWALADER, WICKERSHAM
& TAFT,
Of Counsel.

[Endorsed]: Filed July 15, 1949.

[Title of District Court and Cause.]

ANSWER OF UNION CARBIDE AND CARBON CORPORATION AND UNITED STATES VANADIUM CORPORATION

Come now the defendants Union Carbide and Carbon Corporation and United States Vanadium Corporation severally and, answering the complaint of the plaintiffs herein, each for itself separately and not one for the other nor jointly, admit, deny and aver as follows:

1. They admit the averments in paragraphs 1, 4, 5 and 7 of the complaint, except the averment in paragraph 5 that all of the stock of United States Vanadium Corporation is and at all times in the complaint mentioned has been owned by the defendant Union Carbide and Carbon Corporation, which averment they deny to the extent that it alleges such ownership after November, 1935, and except the averment in paragraph 7 that Electro Metallurgical Sales Corporation is made a defendant herein, which averment they deny; they deny the averments in paragraphs 27, 28, 29, 30, 34, 37, 44 and 45, and they are without knowledge or information sufficient to form a belief as to the truth of any of the averments in paragraphs 3, 9, 10, 11, 17, 18, 24, 25, 26, 31, 32 and 35.

2. They admit so much of paragraph 2 of the complaint as avers that Union Carbide and Carbon Corporation and United States Vanadium Corporation transact business and may be found in San

Francisco, California; they deny that Electro Metallurgical Sales Corporation and Electro Metallurgical Company of Canada, Limited, or either of them, do or does business, maintain or maintains an office in or may be found in San Francisco, California. And further answering the averments in the said paragraph 2, they aver that Electro Metallurgical Company was liquidated and its assets transferred to Union Carbide and Carbon Corporation on November 30, 1948, and that it was dissolved January 5, 1949, that Electro Metallurgical Sales Corporation was merged with Union Carbide and Carbon Corporation March 14, 1949, and that Electro Metallurgical Company of Canada, Limited, neither does business, maintains an office nor is found nor can be found in San Francisco, California, nor in the United States of America; and they are without knowledge or information sufficient to form a belief as to the truth of any of the averments in the said paragraph concerning Vanadium Corporation of America.

3. They admit that the stock of Electro Metallurgical Company was owned by defendant Union Carbide and Carbon Corporation until January 5, 1949; they deny all averments in paragraph 6 of the complaint which are not in this answering paragraph expressly admitted.

4. They deny the averments of paragraph 8 that Electro Metallurgical Company of Canada, Limited, is, or has been made, a defendant herein, that the stock of the said company was owned by Union

Carbide and Carbon Corporation at any time before December 1935, and that the said corporation maintains offices in New York, New York; and they admit the averments of the said paragraph which are not in this answering paragraph expressly denied.

5. Answering the averments of paragraphs 12 to 16, consecutive and inclusive, they deny that vanadium steel is used in many of the products set forth in paragraph 12, they deny that they have sold or shipped in interstate commerce vanadium oxide produced by them in Pennsylvania, they deny that they have sold or shipped in interstate commerce ferrovanadium produced by them in Pennsylvania or Illinois. They neither admit nor deny the averments of the said paragraphs which are not hereinabove in this answering paragraph expressly denied, but they demand strict proof thereof.

6. They admit the averments of paragraphs 19 and 20, except that they deny that Union Carbide and Carbon Corporation acquired vanadium bearing ore deposits or a vanadium oxide mill near Rifle, Colorado, or a ferrovanadium plant in Ohio, and deny that the said corporation coordinates the activities of its subsidiaries and participates in the formulation of their policies, except in so far as cooperation is legally inherent in the relationship of a parent and a subsidiary.

7. Answering the averments of paragraph 21, they admit that between 1937 and 1939 United States Vanadium Corporation purchased some va-

nadium bearing ores from other producers in the Colorado-Utah area; but they are without knowledge or information sufficient to form a belief as to the truth of any of the averments in the said paragraph which are not in this answering paragraph expressly admitted.

8. Answering the averments of paragraphs 22 and 23, they admit that there were other producers during the period alleged therein; but they are without knowledge or information sufficient to form a belief as to any of the averments in said paragraphs which are not in this answering paragraph expressly admitted.

9. They are without knowledge or information sufficient to form a belief as to the truth of the averments in paragraph 33 that Apex produced and Continental distributed substantial quantities of ferrovanadium and that their operation under the said contract extended from the spring of 1940 to the spring of 1942, and they are without knowledge or information sufficient to form a belief as to the truth of any of the remaining averments in the said paragraph 33.

10. Answering the averments of paragraph 36, they admit and aver that defendant Electro Metallurgical Company of Canada was appointed and served as purchasing agent of the Metals Controller of Canada and as such agent followed the directions of said Metals Controller of Canada.

11. They are without knowledge or information

sufficient to form a belief as to the truth of the averments in paragraph 38 that the principal business of Climax was molybdenum; and they deny the remaining averments in said paragraph 38; and further answering, they aver that the said M. D. Arrouett was not and is not an officer or executive of Union Carbide and Carbon Corporation, but was and is an employee of the said corporation and was wholly without authority to speak for or to represent the said corporation in any of the matters concerning which he is alleged to have spoken, that he had and has no connection with and no authority to represent United States Vanadium Corporation, Electro Metallurgical Company, Electro Metallurgical Sales Corporation or Electro Metallurgical Corporation of Canada, Limited, in any capacity whatsoever.

12. They are without knowledge or information sufficient to form a belief as to the truth of the averments in paragraph 39 that in 1944 Continental was forced to leave the vanadium industry altogether or at all; and they deny the remaining averments in said paragraph 39.

13. Answering the averments of paragraph 41, they deny that an indictment was returned against all the defendants named in this complaint and they aver that the said indictment, on motion of the United States Attorney for the District of Colorado, was dismissed on September 21, 1948.

14. Answering the averments in paragraph 42, they admit that an information was filed as in the

said paragraph alleged, but they deny that it was filed against all the defendants in this action, and they deny that it charged the defendants therein with all the violations involved in this action.

15. The averments in paragraphs 40 and 43 are averments of conclusions of law and require no answer.

16. They deny all averments of the complaint herein which they have not expressly admitted or have not expressly denied, or as to which they have not averred that they are without knowledge or information sufficient to form a belief as to the truth thereof.

For a Second and Further Defense These Answering Defendants Aver:

The complaint herein fails to state sufficient facts to constitute a claim upon which relief can be granted.

For a Third and Further Defense These Answering Defendants Aver:

To the extent that the injury or injuries complained of in the said complaint were not sustained by plaintiffs, or any of them, within three years next prior to June 27, 1946, which was the date of the indictment referred to in the said complaint, relief for or on account of the said injuries, if any there were, cannot be had or recovered herein because the cause of action therefor is barred by Sub-

division 1 of Section 338 of the Code of Civil Procedure of the State of California.

For a Fourth and Further Defense These Answering Defendants Aver:

To the extent that the alleged claims and alleged rights of action set forth in the complaint did not accrue within three years next prior to June 27, 1946, which was the date of the indictment referred to in the complaint, the same are barred by the statute of limitations and particularly by Subdivision 1 of Section 338 of the Code of Civil Procedure of the State of California.

For a Fifth and Further Defense These Answering Defendants Aver:

That the plaintiffs have neglected to avail themselves of any right which they might have had against these answering defendants for an undue and unreasonable length of time during which time these answering defendants have unalterably changed their position; and that the plaintiffs have been and are guilty of such delay and laches as to bar them from the relief prayed for or from any relief in equity.

For a Sixth and Further Defense These Answering Defendants Aver:

1. Throughout the war period defendants and certain subsidiaries acted for and on behalf of the United States Government and as its agent in many

activities relating to uranium and vanadium, including the acquirement of ore, the operation of plants, and the disposition of products. Uranium and vanadium occur together in carnotite and roscoelite ore, the principal uranium source in the United States. These operations were governed by contracts with the Government, many of which bound the defendants to the utmost secrecy under penalty of criminal liability under the Espionage laws of the United States.

2. Defendants say that they cannot properly defend this case without a full and complete disclosure of their activities and the activities of the subsidiaries of Union Carbide and Carbon Corporation acting in behalf of the United States and its various agencies and a full disclosure of all of the activities of the United States in the vanadium-uranium fields.

3. Such disclosure, unless authorized by the proper Government authorities, would violate the criminal statutes of the United States, and therefore, unless such disclosure is so authorized, these answering defendants will ask that this action be dismissed.

Dated: San Francisco, California, November 15, 1949.

/s/ HERBERT W. CLARK,
/s/ MORRISON SHAFROTH,
/s/ CLARENCE M. ODDIE,
/s/ NORMAN J. HEARN,
Attorneys for said Defendants.

Demand For Trial by Jury

Defendants Union Carbide and Carbon Corporation and United States Vanadium Corporation demand a trial by jury of all issues in the above entitled action which are triable of right by a jury.

Dated: November 15, 1949.

/s/ HERBERT W. CLARK,
/s/ MORRISON SHAFROTH,
/s/ CLARENCE M. ODDIE,
/s/ NORMAN J. HEARN,
Attorneys for said Defendants.

Acknowledgment of Service Attached.

[Endorsed]: Filed November 15, 1949.

[Title of District Court and Cause.]

ANSWER OF DEFENDANT VANADIUM CORPORATION OF AMERICA

Comes now the defendant Vanadium Corporation of America and answering the plaintiffs' complaint, admits, denies and avers as follows:

First Defense

The Complaint fails to state a claim against said defendant upon which relief can be granted to the plaintiffs collectively or to any plaintiff severally.

Second Defense

1. Said defendant admits that the complaint in this action purports to have been filed under "An

Act to Protect Trade and Commerce Against Unlawful Restraints and Monopolies," as alleged in said paragraph, but denies that it has ever at any time engaged in any activity prohibited by said act.

2. Said defendant denies each and every allegation contained in paragraph 2 of the complaint, in so far as such allegations relate to it, and except as so denied states that it is without knowledge or information sufficient to form a belief as to the truth of any of the allegations contained in said paragraph.

3. Said defendant states that it is without any knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraphs 3, 4, 5, 6, 7 and 8 of the complaint.

4. Said defendant admits the allegations contained in paragraph 9 of the complaint, except it states that it has its principal executive office at 420 Lexington Avenue, New York, New York.

5. Said defendant states that it is without any knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraphs 10 and 11 of the complaint.

6. Said defendant states that it is without any knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 16 of the complaint in so far as they relate to other defendants, and states that said defendant has not produced ferro-vanadium in New York, Ohio, West Virginia or Illinois.

7. With respect to paragraph 17 of the complaint, said defendant denies that it entered the va-

nadium business in or about 1911; alleges that it was incorporated in or about September, 1919, and thereafter acquired certain vanadium-bearing ore bodies in the Republic of Peru and a ferro-vanadium plant at Bridgeville, Pennsylvania; admits that it acquired, prior to the year 1931, certain ore deposits and a vanadium oxide mill site in the State of Colorado; admits that it has produced vanadium oxide and ferro-vanadium in its plant in Pennsylvania from ores mined in Peru and from flue dust and other vanadium-bearing materials which it has purchased; and admits that it has produced ferro-vanadium at its said plant from vanadium oxide purchased by it and from vanadium oxide produced at its plants in Colorado and Utah from ores mined in Colorado, Utah, New Mexico and Arizona. Except as herein admitted and alleged, it denies each and every allegation contained in the said paragraph of the complaint.

8. With respect to paragraph 18 of the complaint, said defendant alleges that an import tax was imposed by Peru prior to 1931, but was increased in or about that year; alleges that its cessation of imports from Peru beginning in 1931 was in large part due to reduction in volume of defendant's business; denies that it commenced the production of vanadium oxide or constructed or operated a vanadium mill in Colorado in 1939; and otherwise admits the allegations contained in said paragraph of the complaint.

9. Said defendant states that it is without any knowledge or information sufficient to form a belief

as to the truth of the allegations contained in paragraphs 19 and 20 of the complaint.

10. With respect to paragraph 21 of the complaint, said defendant denies that it started to purchase vanadium-bearing ores mined by independent producers in the Colorado-Utah area between 1937 and 1939, but admits that it purchased such ores in 1940 and subsequent years; and it otherwise states that it is without any knowledge or information sufficient to form a belief as to the truth of the allegations contained in the said paragraph of the complaint.

11. With respect to paragraph 22 of the complaint, said defendant states that it is without any knowledge or information sufficient to form a belief as to where the vanadium oxide produced in small vanadium oxide mills in the Colorado-Utah area was sold, except it admits that subsequent to 1940 it purchased certain quantities of vanadium oxide produced by certain of such mills.

12. Said defendant states that it is without any knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraphs 23, 24, 25 and 26 of the complaint.

13. Said defendant denies each and every allegation contained in paragraphs 27, 28, 29 and 30 of the complaint.

14. Said defendant states that it is without any knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraphs 31 and 32 of the complaint.

15. Said defendant denies each and every allegation contained in paragraph 33 of the complaint, except it states that it is without any knowledge or information sufficient to form a belief as to the quantities of ferro-vanadium produced by Apex and distributed by Continental, or as to operations under any contract with Apex.

16. With respect to paragraph 34 of the complaint, said defendant states that it is without any knowledge or information sufficient to form a belief as to the truth of the allegations contained in the first two sentences of said paragraph; and it otherwise denies each and every allegation contained in the said paragraph of the complaint.

17. Said defendant states that it is without any knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 35 of the complaint.

18. Said defendant denies each and every allegation contained in paragraph 36 of the complaint, except it states that it is without any knowledge or information sufficient to form a belief as to the truth of the following statements contained in said paragraph 36:

> "Throughout the year 1942, Continental shipped to Atlas Steels Limited of Canada, hereinafter called 'Atlas', substantial quantities of its vanadic acid under the trade name of Van-Ex and substantial quantities of a high content ferro-vanadium (seventy to eighty per cent vanadium) which it produced. The product of

Continental was preferred by Atlas and other Canadian customers because of its high-vanadium content."

19. Said defendant denies each and every allegation contained in paragraph 37 of the complaint.

20. Said defendant states that it is without any knowledge or information sufficient to form a belief as to the truth of the allegations contained in paragraph 38 of the complaint, except it admits, upon information and belief, that the principal business of Climax Molybdenum Corporation was the production of molybdenum, and denies that said defendant ever threatened, or authorized anyone on its behalf to threaten, that it would enter the molybdenum industry as a reprisal against Climax.

21. Said defendant is without knowledge or information sufficient to form a belief as to the truth of the allegation contained in paragraph 39: "Finally in 1944, Continental was forced to leave the vanadium industry altogether." Said defendant denies each and every other allegation contained in said paragraph, and alleges that if Continental was forced to leave the vanadium industry, as alleged in said paragraph, such leaving was due to causes other than any action of any kind of said defendant, and that said defendant neither caused nor contributed to such action on the part of Continental.

22. With respect to paragraph 40 of the complaint, said defendant states that the allegation is a mere conclusion of law, without application to this case, and that no judgment has been rendered to the effect that said defendant has violated the

antitrust laws in any respect; it denies that said paragraph contains a true and complete statement of the provisions of section 16 of Title 15, United States Code, and begs leave to refer to said statute for a true, complete and accurate statement of the terms thereof.

23. Said defendant denies each and every allegation contained in paragraph 41 of the complaint, except it admits that on or about June 27, 1946, an indictment returned by the Grand Jury against certain of the defendants named in the complaint herein was filed in the District Court of the United States of America for the District of Colorado, charging the defendants named therein with violation of the Sherman Act, which indictment was dismissed on or about September 21, 1948, on motion of the United States; and it begs leave to refer to the said indictment for a true, complete and accurate statement of the charges thereof.

24. Said defendant denies each and every allegation contained in paragraph 42 of the complaint, except it admits and alleges that in or about September, 1948, an information was filed against certain of the defendants named in the complaint herein, which information charged the defendants named therein with violation of the Sherman Act, and begs leave to refer to the information for a true, complete and accurate statement of the charges therein contained.

25. Said defendant denies each and every allegation contained in paragraphs 43, 44 and 45 of the complaint.

Third Defense

The right or rights of action set forth in the complaint did not accrue within three years next before the commencement of this action.

Fourth Defense

Any and all claims, damages and causes of action referred to in the complaint, and each and every part thereof, which did not accrue within three years of the commencement of this action are barred by the provisions of section 338, subdivision (1), of the California Code of Civil Procedure.

Fifth Defense

Plaintiffs, and each of them, are barred by reason of laches from maintaining this action and from obtaining the relief or any part thereof prayed for in the complaint.

Wherefore, said defendant prays that it be dismissed hence with its costs of suit herein incurred, and for such other and further relief as the court may deem just and proper.

HOLLAND & HART,
JOSIAH G. HOLLAND,
PILLSBURY, MADISON & SUTRO,
JOHN A. SUTRO,
/s/ By JOHN A. SUTRO,
Attorneys for Defendant Vanadium Corporation of America.

Acknowledgement of Service Attached.

[Endorsed]: Filed November 15, 1949.

[Title of District Court and Cause.]

PLAINTIFFS' JURY INSTRUCTIONS

Comes now the plaintiffs in the above-entitled action and submit to the Court their jury instructions. Instructions as to the credibility of witnesses and such other general instructions as the Court deems necessary to this action have been omitted.

Dated: June 1, 1958.

/s/ JOSEPH L. ALIOTO,
Attorney for Plaintiffs,

CADWALADER, WICKERSHAM & TAFT, Of Counsel.

Instruction No. 1

The plaintiff in this action is Continental Ore Company, a partnership composed of Henry J. Leir, Erna D. Leir and Lina Schloss. This partnership is a successor in interest to the Continental Ore Corporation which was incorporated under the laws of the State of New York on June 16, 1939. On May 5, 1942, these parties formed a partnership doing business as Continental Ore Company.

The plaintiff is and has been engaged in the business of arranging for the manufacture and distribution of ferro alloys, and the distribution of nonferrous minerals, ores and metals.

The defendants in this action are as follows:

Union Carbide and Carbon Corporation, a New York corporation. This corporation directly controls

and operates the following subsidiary corporations which have certain specified functions and duties. They are called units of Union Carbide and Carbon Corporation.

United States Vanadium Corporation, sometimes referred to as "U.S.V.", is a New York corporation and is the unit of Union Carbide which acquires and produces vanadium-bearing ore and vanadium oxide. Vanadium is essentially used by steel makers as an alloy which increases the strength of steel and its resistance to fatigue. It is used particularly in high speed steels and in a variety of high strength steels. U.S.V. is a part of the Alloys and Metals Division of Union Carbide.

Electro Metallurgical Company, sometimes referred to as Electromet, is a unit of Union Carbide in the Alloys and Metal Division. From January 1, 1933 to February 23, 1949, Electromet was engaged in the production of ferrovanadium and vanadium oxide, among other activities. Electromet is the brand name of Union Carbide's ferro alloys and metals. Electromet was formed in 1906 when the predecessor to Union Carbide and Carbon Company went into the business of making ferro alloys and alloying metals in electric furnaces.

The present defendant Union Carbide and Carbon Corporation was organized in November, 1917. Its units at that time included Union Carbide Company, Electro Metallurgical Company, National Carbon Company, Inc., The Prestolite Company, Inc. and the Linde Air Products Company.

After 1948, Electromet's activities in the vanadium field were assumed by Electro Metallurgical Division of Union Carbide.

Electro Metallurgical Sales Corporation, sometimes referred to as "Electromet Sales", is also a corporation in the Alloy and Metals Group of Union Carbide. Prior to March, 1949, it was engaged in distributing or selling the ferro alloys and alloying metals of Union Carbide. In March, 1949, it was merged into Union Carbide.

Electro Metallurgical Company of Canada, Limited, sometimes referred to as "Electromet of Canada", is a Canadian corporation. It is also in the Alloys and Metals Group of Union Carbide. It is in charge of the distribution or selling of ferro alloys and alloying metals of Union Carbide in Canada.

The above-mentioned defendants then are what may called the "Union Carbide defendants."

Also named as a defendant in this action is a corporation which is not owned by Union Carbide, or a subsidiary or affiliate of it. This defendant is Vanadium Corporation of America, sometimes referred to as "V.C.A." It is a Delaware corporation with its principal place of business in New York City. This corporation is engaged in the business of acquiring, producing and distributing vanadium and vanadium products. A large portion of the stock of this corporation is owned by Air Reduction Company, Inc.

Officers

A. Vanadium Corporation of America

Mr. A. A. Corey, Jr. was president of Vanadium Corporation of America until 1934, at which time he was succeeded by Mr. E. D. Bransome.

Mr. Patrick J. Gibbons served as Executive Vice President of V.C.A. He has also served as a member of the Board of Directors and of the Executive Committee. He was also in charge of the production and refining of ferrovanadium and vanadium oxide.

Mr. Dennis W. Viles served as a Vice President of V.C.A. and was also in charge of mining.

Mr. Gustav Laub was a Vice President of V.C.A. and was also in charge of the distribution and sale of ferrovanadium and vanadium oxide.

Mr. F. F. Kett served as general manager of the Mining Division of V.C.A.

B. Union Carbide and Carbon and Its Subsidiaries

The persons having overall executive supervision over the mining, production, refining and distribution of ferrovanadium and vanadium oxide of the Alloy Group of Union Carbide were:

Mr. F. P. Gormely, deceased, from January 1, 1933 to July 13, 1944;

Mr. W. J. Priestley, from July 13, 1944 to January 20, 1948;

Mr. W. E. Remmers, from January 20, 1948 to July 15, 1949;

The persons in charge of the mining and/or refining of vanadium-bearing ore and the production and/or refining of vanadium oxide were:

Mr. J. R. Van Fleet, deceased, from January 1, 1933 to April 8, 1947;

Mr. Blair Burwell, Assistant to Van Fleet and Vice President, 1944 et seq.;

Mr. W. E. Remmers, from April 8, 1947 to January 20, 1948.

The persons in charge of the distribution of vanadium oxide were:

Mr. J. R. Van Fleet, deceased, from January 1, 1933 to April 8, 1947;

Mr. J. D. Swain, from April 8, 1947 to July 15, 1949.

The persons in charge of the distribution of ferrovanadium were:

Mr. J. M. Price, from January 1, 1933 to September 27, 1935; and

Mr. J. D. Swain, from September 27, 1935 to July 15, 1949.

Modified: Exception allowed. E.S.V., Judge.

Instruction No. 2

This action is brought under the Sherman and Clayton Acts.

The plaintiffs bring their case on a specific enactment of Congress known as Section 4 of the Clayton Act. This statutes provides as follows:

"Section 4. That any person who shall be injured in his business or property by reason of anything forbidden in the antitrust laws may sue therefor

in any district court of the United States in the district in which the defendant resides or is found or has an agent, without respect to the amount in controversy and shall recover threefold the damages by him sustained, and the cost of suit, including a reasonable attorney's fee."

It is alleged by the plaintiffs that the defendants have violated Sections 1 and 2 of the Sherman Act. Section 1 of the Sherman Act states as follows:

"Section 1. Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is hereby declared to be illegal * * *"

Section 2 of the Sherman Act states as follows:

"Section 2. Every person who shall monopolize or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by fine not exceeding five thousand dollars, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court."

Given: E.S.V., Judge.

Instruction No. 3

All of the parties defendant are corporations. In that connection I instruct you that a corporation is held to the same measure of liability as an indi-

vidual. A corporation acts through its officers, directors and agents and may through one or more of them conspire with another corporation or with other individuals. Any act of an officer, director or agent of a corporation which is done within the scope of his duties or authority you may consider to be an act of the corporation itself.

Given: E.S.V., Judge.

Instruction No. 4

The parent corporations which are defendants in the present case and which I have mentioned are not chargeable with the acts of their subsidiary corporations solely because they are parent corporations, but if you should find that one or more of the parent corporations used their ownership of the subsidiaries to cause such subsidiaries to act in their behalf, then such parent corporations are liable for the resulting acts of the subsidiaries. For example, the defendant United States Vanadium Corporation is a wholly-owned subsidiary of the defendant Union Carbide. If you should find that Union Carbide used its direct ownership of United States Vanadium Corporation to cause the participation of it in an illegal conspiracy, monopoly, or attempt to monopolize, which, in turn, deprived the plaintiffs of opportunities to manufacture and distribute vanadium products, then you may attribute the activities of United States Vanadium Corporation to Union Carbide in your determination of whether or not the defendants, or any of them, are guilty of an illegal conspiracy.

Loew's Inc. v. Cinema Amusements, (Tr. 1049) Approved 210 F. 2d 86, 92 (10th Cir. 1954).

Modified: E.S.V., Judge.

Instruction No. 5

Section 1 of the Sherman Act condemns conspiracies to restrain trade.

Section 2 of the Sherman Act condemns conspiracies to monopolize and individual attempts to monopolize any part of interstate trade and commerce.

A conspiracy is an agreement between two or more persons to do an unlawful thing or to do a lawful thing in an unlawful manner.

The antitrust laws contemplate that a conspiracy may exist between affiliates of a parent corporation.

Kiefer Steward Co. v. Joseph E. Seagrams & Sons, 340 U. S. 211, 71 S. Ct. 259.

Continental Ore Company in this action complains that the defendants have done the following, in summary:

1. They have conspired to restrain interstate trade and commerce by conspiring to exclude independent producers and distributors of vanadium products, to fix prices, to discriminate against independents, and to refuse to deal with independents.

2. They have conspired to monopolize the interstate vanadium industry so as to completely control and dominate this industry to the exclusion of other independent producers and distributors.

Continental Ore Company claims that it had the know-how and the organization to enter into the

vanadium industry and to distribute large amounts of vanadium pentoxide and ferrovanadium. It claims that pursuant to the conspiracies of the defendants it has been prevented from operating successfully as a distributor of vanadium products during the period 1938 to 1944 and that the effect of these conspiracies was to virtually eliminate it from the vanadium industry after 1944.

This is their first claim. Secondly, they claim that Section 2 of the Sherman Act condemns the intention to monopolize interstate trade and commerce by individual corporations, and that each corporate defendant attempted to monopolize the vanadium industry and exclude Continental from successful operation in it, as heretofore set forth.

Thirdly, Continental claims that the affiliated companies of Union Carbide formed a separate conspiracy to monopolize the vanadium industry and to restrain trade in that industry and to exclude Continental from successful operation in the vanadium industry, as heretofore set forth.

I will now instruct you on the status of the law as to charges of the plaintiff.

Modified: E.S.V., Judge.

Instruction No. 6
Conspiracy

Continental Ore Company, in order to prove the existence of a conspiracy need not show you an express, formal agreement to do so. You are allowed to infer the existence of a conspiracy from a course of dealings or through an exchange of words and

from acts done. An unlawful conspiracy is often formed without simultaneous action or agreement on the part of the conspirators. Plaintiffs are seldom capable by direct testimony or evidence to prove a conspiracy. Therefore, the law allows you as members of the jury to infer the existence of a conspiracy from things actually done, taking into consideration all of the facts and circumstances surrounding the conduct of the parties who are charged with the conspiracy. Proof of conspiracy, however, requires more than merely suspicion or conjecture, and there must be either direct proof of conspiracy or circumstantial evidence sufficiently strong to give rise to an inference of a conspiracy. It is sufficient, however, if the plaintiffs establish by a preponderance of the evidence, or the greater weight of the evidence, that two or more parties, in any manner, came to a mutual understanding to establish a common and unlawful design.

Interstate Circuit, Inc. v. United States (1939) 306 U. S. 208; Ball v. Paramount Pictures, Inc., (1948) 169 F. 2d 317; Wm. Goldman Theatres v. Loew's, Inc. (1945) 150 F. 2d 738; United States v. Paramount Pictures, Inc., et al. (1948), 334 U. S. 131.

Given: E.S.V., Judge.

Instruction No. 7

Conspiracy to Monopolize

Section 2 of the Sherman Act condemns the entering into a conspiracy, by otherwise competitive parties, to monopolize an industry.

Ladies and gentlemen, if you find that the defendants Union Carbide and/or its affiliates, and Vanadium Corporation of America conspired together, and that these two corporations together possessed over 90 per cent control of the production of vanadium oxide or over the sales of vanadium pentoxide and/or ferrovanadium, then you should find that the defendants are in violation of Section 2 of the Sherman Act.

The term "monopolize" as used in Section 2 of the Sherman Act means the joint acquisition or maintenance by the members of a conspiracy formed for that purpose, of the power to control and dominate interstate trade and commerce in a commodity to such an extent that they are able, as a group, to exclude actual or potential competitors from the field, accompanied with the intention and purpose to exercise such power.

The essential element of the illegal monopoly or monopolization charged is the existence of a combination or conspiracy to acquire and maintain the power to exclude competition to a substantial extent.

"A correct interpretation of Section 2 of the Sherman Act is that it is unlawful for parties to combine or conspire to acquire or maintain the power to exclude competitors from any part of the trade or commerce among the several states or with foreign nations, provided they also have such a power, as a group, to exclude actual or potential competition from the field and provided that they have the intent and purpose to exercise that power."

United States v. American Tobacco Co., et al. (1946), 328 U. S. 781.

Modified: E.S.V., Judge.

Instruction No. 8
Monopolization

Section 2 of the Sherman Act also condemns the monopolization of interstate trade and commerce. This is to be distinguished from conspiracy to monopolize. For "monopolization" may be committed by one party, and it means the attainment of a position of power in an industry so as to be able to exclude others or to fix prices. Upon the attainment of such power by a single corporation, coupled with the showing of the employment of methods, means and practices which are in themselves in restraint of trade, said party has unlawfully monopolized in violation of Section 2 of the Sherman Act.

United States v. American Tobacco Co., et al. 328 U. S. 781.

Modified: E.S.V., Judge.

Instruction No. 9
Attempt to Monopolize

Even if a party is unsuccessful in obtaining control over an industry, he may still be in violation of Section 2 of the Sherman Act if he is found to have a specific intent to acquire a monopoly position. Although the party is unsuccessful in attaining full monopoly power, he will be in violation of the anti-trust laws if he has a specific intent to acquire a

position whereby he is able to exclude others or to fix prices.

The "intention" involved here is that the party had a specific intent to monopolize; that is, the evidence shows that the party possessed conscious knowledge and desire to gain monopoly.

United States v. Aluminum Co. of America, (1945) 148 F.2d 416; United States v. Socony Vacuum Oil Co. et al. 310 U. S. 150, 224, Footnote 59.

Modified: E.S.V., Judge.

Instruction No. 10
Conspiracy to Refuse to Deal With Plaintiff

It is charged by the plaintiff that the defendants conspired to refuse to sell vanadium supplies to it.

It is well established that an agreement, combination or conspiracy between two or more persons engaged in interstate commerce to withdraw or withhold customers from another, or with a class of others is violative of the antitrust laws. It is a violation of Section 1 of the Sherman Acts which condemns agreements to restrain trade.

Standard Oil Co. v. Moore, (1957) 1957 Trade Cases §68,861; Northern Pacific Ry Co. v. United States (1958) 78 S. Ct. 514.

Given: in substance. E.S.V., Judge.

Instruction No. 11
Conspiracy to Fix Prices

It is unlawful per se for two or more competitors to fix prices, and any scheme or plan which fixes

prices is unlawful under the antitrust laws. The existence of uniformity of prices between two or more competitors is relevant evidence from which it may be inferred that a conspiracy to fix prices existed.

United States v. Socony Vacuum Oil Co. 310 U. S. 150.

Modified: E.S.V., Judge.

Instruction No. 12
Summary of Plaintiffs' Charges

If you find from the greater weight of the evidence that the defendants here conspired to monopolize the vanadium industry, and succeeded in that enterprise to the injury and damage of Continental, then Continental is entitled to prevail.

The Sherman Act condemns the conspiracy or agreement between competitors to join forces to gain control or to exclude others. If you find from the preponderance of the evidence that this conspiracy had the effect of excluding the plaintiffs from the vanadium industry or preventing Continental from operating successfully, the plaintiffs have established their case.

Further, if you find that any one of these defendants, either Union Carbide, or any one of its affiliated corporations, or Vanadium Corporation of America attempted to monopolize the vanadium industry and had the intent to exclude the plaintiffs from the industry, or used its power and resources to prevent the plaintiffs from successfully operating

in the vanadium market, or to exclude it, the plaintiffs have established their case.

Further, if you find that the affiliated corporations of Union Carbide combined and conspired to monopolize the vanadium industry and had the intent to exclude Continental from the industry, or used their power and resources to prevent Continental from successfully operating in the vanadium market, or to exclude it, the plaintiffs have established their case against these corporations.

Rejected: E.S.V., Judge.

Instruction No. 13
Interstate Trade and Commerce

The Sherman Act applies to conduct in or affecting interstate trade or commerce. Commerce is interstate when it concerns more than one State.

Commerce comprehends intercourse for the purposes of trade in any and all of its forms, including the transportation, purchase, sale and exchange of commodities.

The business of the defendants is in interstate commerce. As to Union Carbide and its affiliates, they mined substantial quantities of vanadium ore in several states of the United States. This ore was then milled at Rifle, Colorado and Uravan, Colorado. This milled product was then shipped in substantial quantities in interstate commerce to processing plants located in Ohio, New York and West Virginia. This processed vanadium was then sold in interstate commerce in substantial quantities to

large interstate concerns and to purchasers in foreign commerce.

V. C. A. mined substantial quantities of vanadium ore during most of the time herein concerned, or else acquired vanadium ore from others. V. C. A. processed its milled ore in its plant in Pennsylvania from sources of supply located in Colorado, Utah, New Mexico and Arizona. It sold substantial quantities of vanadium products in interstate commerce to large interstate customers and to purchasers in foreign commerce.

The activities of the defendants involved herein thus were in or affected a substantial amount of interstate commerce.

In addition, Continental was a company operating in the channels of interstate and foreign commerce.

United States v. South Eastern Underwriters' Ass'n, 322 U. S. 533; Radovich v. National Football League et al., 77 S. Ct. 390.

Rejected: E.S.V., Judge.

Instruction No. 14

In addition to establishing the conspiracies and plans I have outlined to you, plaintiff must also establish that these acts had a proximate impact on his business or trade which caused injury to it.

Bigelow v. R.K.O. Radio Pictures, Inc., 327 U. S. 251.

Rejected: E.S.V., Judge.

Instruction No. 15

Damages

If you are satisfied that the plaintiff has proved by a greater weight of the evidence that the defendants have violated the antitrust laws by entering into a conspiracy to monopolize the vanadium industry, or by individually attempting to monopolize the vanadium industry, and such conduct had a proximate injurious impact on plaintiffs' business, then, you may assess damages in this action based upon probable and inferential proof as well as direct and positive proof.

The purpose of awarding damages in a private antitrust case is to put the plaintiff in as good a position as if the conspiracy or the monopolization had not occurred.

Thus, if you find that violations of the antitrust laws have occurred, the defendants, by their own wrong, have prevented you from knowing exactly and with mathematical certainty what would have occurred to plaintiffs but for these violations of antitrust laws. The law, therefore, allows you, the jury, to arrive at an award of damages based on your judgment from relevant data introduced in evidence so as to compensate the plaintiff for all damages proximately caused by the acts of the defendants which have violated the antitrust laws.

Storey Parchment Co. v. Paterson Parchment Paper Co., 282 U. S. 555; Eastman Kodak Co. v. Southern Photo Materials Co., 273 U. S. 359;

Bigelow v. R.K.O. Radio Pictures, Inc., 327 U. S. 251.

Rejected: E.S.V., Judge.

Instruction No. 16

The antitrust laws contemplate that those who have conspired or planned to monopolize should not profit by their own wrong, and the most elementary conceptions of justice and public policy require that the wrongdoer shall bear the risk of uncertainty which his own wrong has created. The wrongdoer may not object to the plaintiff's reasonable estimate of the cause of injury or its amount, supported by reasonable data, because not based on more accurate data which the wrongdoer's misconduct has rendered unavailable.

The constant tendency of the law is to find some way in which damages may be awarded where a wrong had been done. Difficulty of ascertainment of the precise amount of damages suffered is not allowed to confuse the right of recovery for a proven invasion of a plaintiff's rights.

Bigelow v. R.K.O. Radio Pictures, 327 U. S. 359.

Rejected: E.S.V., Judge.

Instruction No. 17

An injured plaintiff under Section 4 of the Clayton Act is entitled to damages for the following injuries:

1. The expenses involved in establishing a business;

2. The increased costs incurred in running the business by reason of the violations of the antitrust laws;

3. The inability to make profits which would otherwise have been made but for the violations of the antitrust laws and their impact on the plaintiffs' business;

4. The diminished value of the plaintiffs' business by reason of its being excluded from the market by violations of the antitrust laws.

William Goldman v. Loew's Inc., 150 F.2d 738, 69 Fed. Supp. 103; Storey Parchment Co. v. Paterson Parchment Paper Co., 282 U. S. 555, 51 S. Ct. 248; Eastman Kodak Co. v. Southern Photo Materials Co., 273 U. S. 359, 47 S. Ct. 400.

Rejected: E.S.V., Judge.

Instruction No. 18

Continental Ore Company is entitled to an award of damages caused by the acts of the defendants during the period from October 10, 1939 to July 15, 1949.

Steiner v. Fox West Coast (9th Cir) 232 F. 2d 190; Hess v. Anderson Clayton Co., (D. C. Cal.) 20 F.R.D. 466; Aerojet Sales Co. v. Columbia Steel Co., 119 Fed. Supp. 693.

The United States complaint filed against these defendants on June 27, 1946, allowed tolling of the statute of limitations under Title 15, U.S.C.A. Section 16.

By Act of Congress, the running of the statute of limitations applicable to violations of the federal antitrust laws was suspended from October 10, 1942 to June 30, 1946.

Act of October 10, 1942, Chap. 589, 56 Stat. 781, as amended by Act of June 30, 1945, Chap. 213, 59 Stat. 306, 15 U. S. Code, Sec. 16, note.

Rejected: E.S.V., Judge.

Instruction No. 19

Damage Calculations

Assuming that you have found that the defendants have violated the antitrust laws to the injury of the plaintiff here, as I have previously instructed you, you are entitled to award the plaintiff damages for all wrongs proximately caused by the violations of the antitrust laws on plaintiffs' trade and business.

In arriving at damages you are not to render a verdict based on guess work or speculation, but based on the relevant data and evidence submitted by the parties.

In this connection, I am going to instruct you as to what is proper in arriving at your estimate of the damages suffered.

The plaintiff has no way of knowing with a certainty what its profits or the value of the business would have been but for the violations of the antitrust laws; therefore, it can only approximate damages by the use of relevant and reasonable data.

Plaintiff Continental claims that during the period 1938 to 1944 it was curtailed in its operations, and it lost profits that it would have otherwise obtained in a free and open competitive market denied to it by the alleged violations of the antitrust laws.

Plaintiff further claims that the defendants ended its ability to enter into the vanadium market after 1944 and effectively excluded it from this market. It therefore claims damages from 1944 to 1949 for the loss of profits that it suffered by being unable to operate at all in the vanadium industry.

In your calculation of damages, you should consider the business records of the plaintiff, the experience and know-how and knowledges of the LEIRS, the success of the defendants as disclosed in their business records, and the expert opinion of the witnesses.

If you find that in the light of this evidence the plaintiff suffered a curtailed operation during the period 1938 to 1944 which caused it to lose profits it would have otherwise made, you should award it damages to compensate for the loss of profits it so suffered.

You may further award damages for any out of pocket expenses and loss of earnings suffered by the plaintiffs in attempting to operate Continental if said expenses and loss of earnings were caused by the defendants.

You may further award damages for the increased costs of operations caused by a price-fixing combination, if you should find that the defendants agreed to fix the prices of vanadium oxide and vanadium ore.

Further, if you find, in the light of this evidence, that plaintiffs suffered an inability to operate in the vanadium industry by reason of the acts of the defendants in violation of the antitrust laws after 1944, you should award damages to compensate plaintiffs for this loss of profits so suffered during the period from 1944 to July 15, 1949. To repeat, in arriving at an award of damages to restore to plaintiffs the profits which would have otherwise been made but for the conduct of the defendants, you may consider the business records of the plaintiff Continental, the business records of the defendants, and their success in the vanadium market, and the expert opinions of the witnesses.

It is proper for you to consider the share of the market controlled by the defendants and their sales and profits in the vanadium industry. It is proper for you to consider the opinions of Mr. Leir and Mr. Wolf as to what their business potentials were and what percentage of the market they estimate Continental would have achieved but for the violations of the antitrust laws by defendants which injured Continental's business.

Flinkote Company v. Lysfjord, 246 F.2d 368.

Rejected: E.S.V., Judge.

Instruction No. 20

In arriving at an award of damages to restore the profits that the plaintiff Continental would have obtained in a market free of violations of the anti-trust laws of the defendants, you may base your award of damages on gross profits if you find that the plaintiff has satisfied you by a preponderance of the evidence or the greater weight of the evidence that it would have incurred no additional or little additional increased expenses in operating its business had it been selling vanadium products at the volume estimated by the expert witnesses.

Wm. Goldman v. Loew's, Inc., 69 Fed. Supp. 103; Triangle Conduit & Cable Co. v. National El. Prod. Corp., 152 F 2d 398.

Rejected: E.S.V., Judge.

Instruction No. 21

Relevancy of Other Business Success of Plaintiff

Further, in considering your estimate of the amount of damages suffered by the plaintiff, it is proper for you to consider the success of the plaintiff's business in other industries and to arrive at an award of damages based on the consideration of the growth of the plaintiff's business in free and uncurtailed industries.

Frey & Sons v. Welch Grape Juice Co. (4th Cir.), 240 Fed. 114.

Rejected: E.S.V., Judge.

Instruction No. 22

When you calculate damages—and I am assuming for the purpose of this instruction that you reach the point of calculating damages—your duty is to calculate as accurately as you can and honestly as you can the amount, if any, which you decide the plaintiffs have lost over the period from October 10, 1939 to July 15, 1949 by reason of the acts of the defendants. I want to make very explicit that you should not let any outside factors influence you. You should not, for example, be in any way influenced by the fact that some or all of the defendants may be large corporations. Your estimate should not be effected in any way by the fact that there are numerous defendants. It is not your job to speculate upon how or to what extent any judgment rendered in this case may be paid or who will pay it. Similarly, you should not be influenced in any way by the fact that the plaintiffs may have continued to operate their business at a profit. The question is not what earnings they did have but what additional earnings they would have had. You should not be concerned with the fact that the full amount of the damages asked in the case is large. Some cases are big cases and some are small, but in every case the damage question is the same: just what amount of damage in dollars and cents has the defendants' wrong caused the plaintiff. So, in this regard, you should not compromise at all but you should render a clear and accurate verdict for the amount of damages which you think are shown by the evidence, no more and no less.

Bigelow v. R.K.O. Radio Pictures, 327 U. S. 251, 262-3 (1951); Cape Cod Food Products v. National Cranberry Assn., 119 F. Supp. 900, 911, 917 (D. Mass. 1954); Sablosky v. Paramount Film Distributing Corp., 137 F. Supp. 929, 941 (E.D. Pa. 1955).

Rejected: E.S.V., Judge.

Instruction No. 23

There has been evidence offered in this case that at certain periods of time some of the defendants or their officers acted as agents of Metals Reserve Company, a government corporation. You are instructed that if any of these defendants used these agency powers for the purpose of carrying out or assisting any combination or conspiracy to restrain trade or to monopolize trade in the vanadium industry, or any actual monopolization thereof, the fact that they might have been government agents at the time does not immunize their conduct.

Furthermore a violation of the antitrust laws may be carried out by acts which standing alone may be legal, but if they form part of an illegal combination or conspiracy to restrain or to monopolize, then you may consider them together with all of the other evidence in the case to arrive at your verdict.

For example, there is evidence in the case that during a period of time the defendant United States Vanadium Company was given authority

to buy ore for MRC, paying therefor no more than 50c per pound. Nevertheless if that defendant arrived at those prices as a result of agreement or collaboration or concert of action with any other defendant, then the fact that it was acting as agent for MRC does not immunize conduct that is otherwise unlawful under the instructions I have given.

Crummer v. Du Pont (5th Cir.), 223 F.(2) 238; cf. United States v. Socony Vacuum Co., 310 U. S. 150.

Refused; exception allowed: E.S.V., Judge.

Instruction No. 24

The evidence in the case shows that at certain time the plaintiffs purchased vanadium oxide or ferrovanadium from the defendants. If you find under my prior instructions that the defendants fixed the prices for vanadium and vanadium oxide and ferrovanadium by agreement or concert of action between themselves, then you may award to plaintiffs as damages the difference between the prices charged and your estimate from the evidence of what those prices would have been in the absence of any violations formed and carried out by the defendants. In this connection you may take into consideration the prices charged by defendants on sales between themselves.

Atlanta v. Chattanooga Foundry, etc., 127 F. 23, 61, aff. 27 S. Ct. 65, 203 U. S. 391.

Refused; exception allowed: E.S.V., Judge.

Co-conspiracy Instruction
Instruction No. 25

If you find from independent evidence that there existed a conspiracy between Union Carbide or United States Vanadium Corporation and Vanadium Corporation of America such as the testimony of Blair Burwell or the Agreement of June 30, 1939, as example, then all the interoffice letters and memoranda introduced in evidence as against one party may be considered by you as admissible against the other defendants as declarations of a co-conspirator so far as they were in furtherance of the conspiracy, and such declarations of a conspirator may then be considered by you as binding on all the defendants.

Schine Chain Theatres v. United States, 334 U. S. 110, 68 S. Ct. 947; United States v. Vehicular Parking, 52 Fed. Supp. 751; Hitchman Coal & Coke Co. v. Mitchell, 245 U. S. 229, 38 S. Ct. 65.

Refused; exception allowed: E.S.V., Judge.

Acknowledgment of Service Attached.

[Endorsed]: Filed June 25, 1958.

[Title of District Court and Cause.]

INSTRUCTIONS REQUESTED BY DEFENDANTS VANADIUM CORPORATION OF AMERICA, UNION CARBIDE CORPORATION, AND UNITED STATES VANADIUM CORPORATION

May it please the Court:

Without waiving their right jointly or severally to request further and additional instructions which may become necessary or desirable as the trial proceeds, permission for which is hereby respectfully requested in accordance with Rule 19 of the Rules of Practice of the United States District Court for the Northern District of California, the defendants respectfully request the court to give the following instructions.

/s/ JOSIAH G. HOLLAND,
/s/ E. R. NEAHER,
/s/ JOHN A. SUTRO,
/s/ ALLAN N. LITTMAN,

Attorneys for Defendant Vanadium Corporation of America.

/s/ RICHARD J. ARCHER,
/s/ GIRVAN PECK,

Attorneys for Defendants Union Carbide Corporation and United States Vanadium Corporation.

Defendants' Proposed Instruction No. 1

You are instructed to return your verdict in favor of defendant Vanadium Corporation of America.

Refused: E.S.V., Judge.

Defendants' Proposed Instruction No. 2

You are instructed to return your verdict in favor of defendant Union Carbide and Carbon Corporation.

Refused: E.S.V., Judge.

Defendants' Proposed Instruction No. 3

You are instructed to return your verdict in favor of United States Vanadium Corporation.

Refused: E.S.V., Judge.

Defendants' Proposed Instruction No. 4

You are instructed that this case does not involve any issue with respect to any period prior to July 6, 1938.

Given: E.S.V., Judge.

Defendants' Proposed Instruction No. 5

The parties in this case are as follows:

Plaintiffs are Henry J. Leir, Erna D. Leir and Lina Schloss, who are partners under the trade name and style of Continental Ore Company. That company has its office and place of business at 500 Fifth Avenue, in the City and State of New York.

Defendant Union Carbide and Carbon Corpora-

tion is a New York corporation with its principal place of business at 30 East 42nd Street, New York, New York.

Defendant United States Vanadium Corporation was a Delaware corporation, all the stock of which had been owned by the defendant Union Carbide and Carbon Corporation. Its principal place of business was 30 East 42nd Street, New York, New York.

Defendant Vanadium Corporation of America is a Delaware corporation having its executive office at 420 Lexington Avenue, City and State of New York and is not affiliated in any way with the other two defendants.

Given in substance. E.S.V., Judge.

Defendants' Proposed Instruction No. 6

This action was brought to recover damages claimed to have been suffered by the plaintiffs by reason of an alleged violation of the antitrust laws of the United States. That is to say, plaintiffs contend that defendants have violated the antitrust laws and that plaintiffs were eliminated from the Vanadium industry by this alleged violation of law. Those contentions are denied by each and all of the defendants.

Given: E.S.V., Judge.

Defendants' Proposed Instruction No. 7

The gist of plaintiffs' complaint is that the part of their business concerned with brokerage and

jobbing of vanadium products which they began in July, 1938, was damaged and finally eliminated in 1944 as the alleged result of an alleged unlawful combination and conspiracy among defendants to control the vanadium industry.

Plaintiffs specify that the alleged acts and practices of the defendants which directly and proximately affected them were:

1. Apex Smelting Company of Chicago, Illinois, with which plaintiffs had an exclusive brokerage contract to sell its ferrovanadium production, and under which operations commenced in the spring of 1940, was compelled to cease the manufacture of ferrovanadium in the spring of 1942 because it was unable to operate profitably for the reason that it was unable to obtain vanadium oxide.

2. The failure of plaintiffs' own operation on Long Island, New York, begun in August, 1942, because of the difficulty of securing raw materials which made it commercially impossible to operate profitably.

3. Imperial Paper and Color Corporation of Glen Falls, New York, was forced to abandon in 1944 a contract made in that year with plaintiffs, under which plaintiffs were to act as sales agent for Imperial's entire output of ferrovanadium and vanadium oxide. This is alleged to have been due to Imperial's and plaintiffs' inability to secure vanadium oxide or vanadium-bearing ores.

4. The loss in 1943 of a Canadian customer, Atlas Steels, Limited, and plaintiffs' elimination from the Canadian market as a result of activities of Elec-

tro Metallurgical Company of Canada, then the agent of the Canadian Government in the wartime allocation of ferrovanadium to Canadian steel firms. Plaintiffs further allege that these activities embraced an agreement by defendants to divide the Canadian market among themselves and exclude plaintiffs.

5. Either plaintiffs and Climax Molybdenum Corporation, or both, were deterred in June, 1943, from concluding negotiations for Climax to manufacture ferrovanadium for plaintiffs' account by threats of reprisal by an alleged official of defendant Union Carbide.

Defendants deny that they conspired or combined as aforesaid, or that any act of theirs injured plaintiffs' business in vanadium products.

Given: E.S.V., Judge.

Note: Number 5 of the alleged specified unlawful acts and practices refers to action taken by Electro Metallurgical Company of Canada as agent of the Canadian government. Defendant Union Carbide has filed its memorandum with the court in support of the proposition that it cannot be liable for such acts. If the court so rules, we respectfully request that specification number 5 be omitted from this instruction.

Defendants' Proposed Instruction No. 8

In their answers all of the defendants and each one of them specifically deny the material allegations of plaintiffs' complaint which the Court has

just summarized for you and each and every one of the claims made by the plaintiffs in their complaint.

Given: E.S.V., Judge.

Defendants' Proposed Instruction No. 9

It is the duty of the court to rule on questions of law, the admission of evidence and the conduct of the trial generally, and finally, when all the evidence is in and the jury has heard the arguments of counsel, to instruct the jury as to the law that will control and govern your determination of this case.

It is your duty as jurors to accept the law as stated by the court in these instructions and to apply it to the facts as found by you. You, the jurors, are the sole and exclusive judges of the facts. You pass upon and determine the credibility of the witnesses and the weight of the evidence. It is your duty to determine the facts based upon the evidence which has come from the witnesses and the exhibits in the case and from no other source. When you have determined the ultimate facts from a consideration of the evidence, you apply the law to the facts as found by you.

Given in substance. E.S.V., Judge.

Based upon Judge Weinfeld's instructions to the jury on February 25, 1953 (Stenographer's Notes, pp. 1545-1547) in J. J. Theatres v. Twentieth Century Fox Film Co., et al. (S.D.N.Y. No. 49-80) reversed on other grounds (2 Cir. 1954) 212 F. 2d 840.

Defendants' Proposed Instruction No. 10

For reasons deemed sufficient by the court, certain issues have been withdrawn from this case. You are instructed that in your deliberations you are to disregard any issues which have been withdrawn from your consideration and any comments of counsel about such issues.

Given: E.S.V., Judge.

Defendants' Proposed Instruction No. 11

You may not presume that the defendants, or any of them, are liable to plaintiffs simply because plaintiffs have sued them and filed a complaint alleging a conspiracy and resulting damages. Neither may you presume that the defendants are not liable simply because they have in their answers denied the allegations made in plaintiffs' complaint.

Given: E.S.V., Judge.

Defendants' Proposed Instruction No. 12

Counsel, in arguing this case to you, have commented upon and argued upon the facts, as is their privilege and their duty. If you find any variance between the facts testified to by the witness or as shown by the documentary evidence, and what has been stated to you by counsel to be the facts, to the extent of such variance you must consider only the facts testified to by the witnesses or as shown by the documentary evidence.

Given: E.S.V., Judge.

United States v. Dried Fruit Ass'n. of California (N.D.Cal. 1944) 4 F.R.D. 1, 6.

Defendants' Proposed Instruction No. 13

At times throughout the trial, the court has been called upon to pass on the question whether or not certain offered evidence might properly be admitted. With such rulings and the reasons for them, you are not concerned. Whether offered evidence is admissible is purely a question of law, and from a ruling on such a question you are not to draw any inference as to what weight should be given the evidence, or as to the credibility of a witness. In admitting evidence to which an objection is made, the court does not determine what weight should be given such evidence. As to any offer of evidence that was rejected by the court, you, of course, must not consider the same. As to any question to which an objection was sustained, you must not conjecture as to what the answer might have been or as to the reason for the objection.

When the court has struck out evidence previously admitted, you are instructed that you are not to consider such evidence on any matter or for any purpose. Where the court has advised you that certain evidence is to be considered with relation to a particular defendant, you may not, of course, consider such evidence in relation to any other defendant.

Given: E.S.V., Judge.

The first paragraph of this instruction is based upon Instruction No. 36 as given by Judge Foley in United States v. Las Vegas Merchant Plumbers Ass'n. (D.C.Nev. No. 12173) affirmed (9 Cir. 1954) 210 F.2d 732, certiorari denied (1954) 348 U.S. 817.

Defendants' Proposed Instruction No. 14

The mere fact that plaintiffs have seen fit to join a number of parties as defendants does not mean that all or any of them are liable. Plaintiffs' claim must be judged separately as to each defendant, and the position of each defendant should be judged on its own merits.

This is especially true wherever the facts, circumstances or nature of the charges made or defenses asserted differ with regard to one defendant from those regarding all or some of the remaining defendants.

Each defendant is entitled to individual consideration of the evidence as applied to it to determine whether that particular defendant participated in any combination or conspiracy. No defendant should be prejudiced in the minds of the jurors merely because it has been named by the plaintiffs with others, as a defendant in this case.

Given: E.S.V., Judge.

Defendants' Proposed Instruction No. 15

You should not allow the fact that the defendants in this case are corporations to influence your verdict in any way. Whether you like or dislike corporations is beside the question. It is your duty to give these corporations the same impartial consideration in weighing the evidence and in arriving at a verdict as you would give to any individual.

Given in substance. E.S.V., Judge.

Defendants' Proposed Instruction No. 16

I shall now instruct you how you shall evaluate the testimony and the exhibits which have been tendered to you. It is basic to your consideration of the evidence that you bear firmly in mind that the plaintiffs have the burden of proof regarding all the issues which I have just outlined to you.

This means that on each of these issues the plaintiffs must prove their contentions by what is called a fair preponderance of the evidence. The fair preponderance of the evidence does not necessarily mean the greater number of witnesses, but it means the greater weight of the evidence taken altogether.

It is said by the courts that the preponderance of the evidence means the evidence of greater convincing force. It means evidence which satisfies the conscience and brings conviction to an intelligent mind.

You must weigh the evidence as though it were placed on a scale. If the scale is weighted in favor of the plaintiffs—that is to say, if they have produced evidence of the greater convincing force—they have sustained their burden of proof. If it is weighted in favor of the defendants or if it is evenly balanced, the plaintiffs have failed to sustain their burden. Unless you are satisfied that plaintiffs have met their burden of proof, you must return a verdict for the defendants.

Given: E.S.V., Judge.

Emich Motors v. General Motors (7 Cir. 1950) 181 F.2d 70; Northwestern Electric Co. v. Federal Power Com'n (9 Cir. 1943) 134 F.2d 740, 743, affirmed (1944) 321 U.S. 119; Bachman v. Order of United C. Travelers of America (N.D.Fla. 1943) 50 F.Supp. 87, 90.

Defendants' Proposed Instruction No. 17

You will in no event make any finding in this case which is based on speculation and conjecture rather than competent evidence and the inferences reasonably to be drawn therefrom. It is not enough that there has been created in your minds some doubt or suspicion as to the conduct of the defendants. The plaintiffs must produce proof of such a nature as carries a conviction to your minds, such as would influence you in the conduct of your own business or daily affairs. The character of the proof must be such as you would be willing to act upon and base a judgment upon in the disposal of important matters.

Given: E.S.V., Judge.

First sentence quoted from the Court's instructions to the jury in Theatre Investment Co. v. R.K.O. Radio Pictures (W.D.Wash. Civil No. 1414) (Tr., p. 18). Remainder quoted from Judge Coleman's instructions to the jury in Theatre Enterprises v. Paramount Film Distrib. Corp. (D.C. Md.) as set forth in the opinion of the court of appeals (4 Cir. 1953) 201 F.2d 306, 314, affirmed (1954) 346 U.S. 537.

Defendants' Proposed Instruction No. 18

There are two kinds of evidence, direct and circumstantial. Direct evidence is that kind of evidence by which a fact is proved directly and without inference from other facts. Circumstantial evidence is that kind of evidence by which an inference of an unknown fact is drawn from the existence of known facts. In arriving at your verdict you are to consider all of the evidence, both direct and circumstantial.

Given: E.S.V., Judge.

Quoted from the court's instructions to the jury in Theatre Inv. Co. v. RKO Radio Pictures (W.D. Wash., Civil No. 1414) (Tr. p. 17).

Defendants' Proposed Instruction No. 19

Before a fact can be said to have been proved by circumstantial evidence alone, it is necessary not only that the circumstances proved by the evidence shall reasonably give rise to an inference of such fact but also that no other equally reasonable inference can be drawn from the same circumstances. If two equally reasonable inferences can be drawn from circumstances proved by the evidence, one consistent with the fact sought to be proved and the other inconsistent therewith, you should not infer the fact sought to be proved from such circumstances alone.

Given: E.S.V., Judge.

Pennsylvania R. Co. v. Chamberlain (1933) 288 U.S. 333, 339-340; J. B. Lippincott Company v.

Federal Trade Commission (3 Cir. 1943) 137 F.2d 490, 494; Standard Oil Company of California v. Moore (9 Cir. 1957) 251 F.2d 188, 210, certiorari denied (June 2, 1958).

Defendants' Proposed Instruction No. 20

In evaluating the testimony to decide whether the plaintiffs have sustained their burden of proof, you will have to decide what credibility is to be attached to the testimony of the various witnesses. Whether you believe or do not believe the witnesses, and the weight to be attached to their testimony, is a matter for your sole and exclusive judgment.

In passing upon the credibility of the various witnesses, it is your right to accept the whole or any part of their testimony, or to discard or reject the whole or any part.

It is your over-all duty to scrutinize carefully the testimony given, and in so doing you are to consider the following:

The circumstances under which the witness testified; his demeanor and manner on the witness stand; his intelligence; the extent to which his testimony is contradicted or corroborated by other evidence, if at all; the reasonableness or unreasonableness of his story; his apparent candor and fairness or the lack thereof; and any other matter which reasonably sheds light upon his reliability as a witness.

Given: E.S.V., Judge.

United States v. Dried Fruit Ass'n. of California (N.D.Cal. 1944) 4 F.R.D. 1, 5-6; Windsor Theatre Co. v. Walbrook Amusement Co. (4 Cir. 1951) 189 F.2d 797, 798-799.

Defendants' Proposed Instruction No. 21

There are several modes of impeaching or discrediting a witness. He may be impeached by evidence that he has made, at other times, statements inconsistent with his present testimony. He may be impeached by contradictory evidence or by evidence that his general reputation for truth, honesty or integrity is bad. He may be impeached by evidence that he is biased against or hostile toward the party against whom he testifies. He may be impeached by evidence that he has an interest in the litigation or that there is pending litigation between him and the party against whom he testifies.

If it is shown that a witness has testified falsely in one part of his testimony, you are at liberty to disregard the testimony of that witness entirely, or in part.

Given: E.S.V., Judge.

Fed. Rules Civ. Proc., Rule 43A; Cal. Code Civ. Proc., secs., 2051, 2052, 2061 (subsec. 3); Wigmore on Evidence (3d Ed. 1940) Vol. III, sec. 949, p. 502; United States v. Cohen (3 Cir. 1947) 163 F. 2d 667, 669.

Defendants' Proposed Instruction No. 22

The purpose of the antitrust laws is to prevent and declare unlawful contracts, combinations and conspiracies designed to unduly restrain competition, or to monopolize, or to unduly obstruct the free course of trade among the different states and with foreign countries. The restrictions imposed by this law were intended to frustrate unreasonable restraints, but not to prevent the use of reasonable means to protect interstate commerce from injurious or destructive practices or the promotion of competition upon a sound basis.

Given: E.S.V., Judge.

United States vs. Dried Fruit Ass'n of California (N.D.Cal. 1944) 4 F.R.D. 1, 6-7.

Defendants' Proposed Instruction No. 23

You are instructed as a matter of law that neither of the defendants by itself possessed sufficient market power in the vanadium industry so that it could have monopolized the vanadium industry.

Refused: E.S.V., Judge.

United States v. du Pont & Co. (1956) 351 U.S. 377, 389-404.

Defendants' Proposed Instruction No. 24

The plaintiffs' complaint is brought under the anti-trust laws. In so far as this action is concerned, unless there has been agreement, combination or conspiracy among two or more persons, the antitrust laws are not applicable. While the agree-

ment, combination or conspiracy can be established by circumstantial evidence without direct proof, still when all is said and done, it is the true and ultimate fact which must prevail. Either there is some agreement, combination or conspiracy or there is not. Unless you find by a preponderance of the evidence that two or more defendants joined together in an agreement, combination or conspiracy by reason of which plaintiffs were injured, you must find for the defendants. Moreover, you cannot find against any defendant who was not a party to an agreement, combination or conspiracy by reason of which plaintiffs were injured.

Given: E.S.V., Judge.

United States v. Morgan (S.D.N.Y. 1953) 118 F. Supp. 621, 634."

Defendants' Proposed Instruction No. 25

In this type of action, the burden is upon the plaintiffs to prove the four basic elements of their claim:

(a) They must prove that the defendants did in fact engage in an unlawful agreement or conspiracy.

(b) They must prove that overt acts were committed or performed by defendants pursuant to the unlawful agreement or conspiracy.

(c) They must prove that these acts injured them and were the direct, immediate and proximate cause of such injury.

(d) They must prove their damages.

I shall explain all of these important terms to you as I proceed with my instructions.

Given: E.S.V., Judge.

Burnham Chemical Co. v. Borax Consolidated (9 Cir. 1948) 170 F.2d 569, 571; Suckow Borax Mines Consol. v. Borax Consolidated (9 Cir. 1950) 185 F.2d 196, 208.

Defendants' Proposed Instruction No. 26

I turn to the first element of plaintiffs' claim, the unlawful conspiracy.

An unlawful conspiracy is an agreement or understanding, express or implied, between two or more persons, to do an illegal act, or to do a legal act in an illegal manner. The essence of the conspiracy is the unlawful agreement or combination. A conspiracy is sometimes defined by the courts as a partnership in an illegal enterprise.

In this case the claim is that the defendants entered into an agreement or combination to restrain and monopolize interstate and foreign trade in vanadium products. The burden is on the plaintiffs to establish the existence of such a conspiracy during the time plaintiffs were in business. If you find that the plaintiffs have not proved that there was such a conspiracy between the defendants, you should not consider any other issues in the case and you must return a verdict for the defendants.

Given: E.S.V., Judge.

United States v. Kissel (1910) 218 U.S. 601, 607-608; U. S. v. Socony-Vacuum Oil Co. (1940) 310

U.S. 150, 253-254; United States v. Dried Fruit Ass'n of California (N.D.Cal. 1944) 4 F.R.D. 1, 7; Marino v. United States (9 Cir. 1937) 91 F.2d 691, certiorari denied (1937) 302 U.S. 764; Lynch v. Magnavox Co. (9 Cir. 1938) 94 F.2d 883, 889.

Defendants' Proposed Instruction No. 27

The mere fact that the businesses of defendants in the production and sale of ferrovanadium and vanadium oxide when added together constitute a large percentage of the business of producing and selling such products in the United States is not a fact from which, standing alone, you can find or infer that defendants have combined or conspired to monopolize interstate trade or commerce within the meaning of section 2 of the Sherman Act.

Refused: E.S.V., Judge.

Defendants' Proposed Instruction No. 28

The law recognizes the right of any trader or manufacturer engaged in a private business freely to exercise his own independent discretion as to the parties with whom he will deal or refuse to deal.

Given: E.S.V., Judge.

United States v. Colgate & Co. (1919) 250 U.S. 300; Times-Picayune Publishing Co. v. United States (1953) 345 U.S. 594, 625; Paramount Film Distributing Corp. v. Applebaum (5 Cir. 1954) 217 F.2d 101, 124.

Defendants' Proposed Instruction No. 29

If a prospective buyer indicates to a seller in advance that he would not buy at the seller's current price for similar sales, the seller's failure to offer goods at that price does not evidence a refusal to deal.

Given: E.S.V., Judge

Standard Oil Company of California v. Moore (9 Cir. 1957) 251 F.2d 188, 203, certiorari denied (June 2, 1958).

Defendants' Proposed Instruction No. 30

The court instructs you that if any defendant acted on the basis of its own business judgment, no inference of conspiracy can be drawn against that defendant, even though after weighing all of the circumstances your own personal opinion might be that the defendant's judgment was incorrect. You cannot find that the defendants entered into an unlawful agreement or conspiracy because you disagree with their business judgment.

Given: E.S.V., Judge.

G. & P. Amusement Company v. Regent Theatre Company (N.D. Ohio 1952) 107 F.Supp. 453, 459.

Defendants' Proposed Instruction No. 31

You are instructed that mere uniformity of prices in the sale of commodities such as vanadium products are not in themselves sufficient evidence of an unlawful agreement or conspiracy since uniformity in price may result solely from economic forces.

Given: E.S.V., Judge.

Based upon Pevely Dairy Co. v. United States (8 Cir. 1949) 178 F.2d 363, 368-370, certiorari denied (1950) 339 U.S. 942.

Defendants' Proposed Instruction No. 32

You may consider diversity of business practices among defendants as tending to show the absence of any unlawful agreement or conspiracy among them.

Given: E.S.V., Judge.

United States v. Morgan (S.D.N.Y. 1953) 118 F.Supp. 621, 634, 699-700; Tag Mfgrs. Institute v. F.T.C. (1 Cir. 1949) 174 F.2d 452.

Defendants' Proposed Instruction No. 33

In reaching a conclusion as to the existence of the conspiracy as charged and whether each defendant was a member, you must do so without regard to, and independent of, the acts and declarations and statements of the others.

The existence of the conspiracy cannot be established against any co-defendant by the acts or declarations of his alleged co-conspirators done or made in his absence. The existence of the conspiracy and each defendant's connection with it must be established by independent proof based upon the reasonable inferences to be drawn from such defendant's own acts, his own declarations and his conduct.

Given: E.S.V., Judge.

Glasser v. United States (1942) 315 U.S. 60, 74-75; Mayola v. United States (9 Cir. 1934) 71 F.2d 65, 67.

Defendants' Proposed Instruction No. 34

The acts or statements of employees, agents or officers of a corporation can only be considered as acts or statements of that corporation if the evidence shows that the corporation through its shareholders, board of directors or authorized management officers vouched for part or all of an employee's, agent's or officer's statement.

It is not necessary to show that the statement was expressly vouched for. If authorized management officers direct that business be conducted in reliance upon a particular intramural statement or report, and it is so conducted without reservation, the corporation has by implication, adopted the statement or report, and is chargeable with it as an admission.

Given: E.S.V., Judge.

Standard Oil Company of California v. Moore (9 Cir. 1957) 251 F.2d 188, 218, certiorari denied (June 2, 1958).

Defendants' Proposed Instruction No. 35

Evidence of acts and declarations of agents or employees of each of the defendants are not to be considered as evidence against other alleged members unless you first find from substantial evidence, independent of such acts or declarations, that there was a conspiracy between the defendants.

Given: E.S.V., Judge.

Glasser v. United States (1942) 315 U.S. 60, 74-75; Standard Oil Company of California v. Moore (9 Cir. 1957) 251 F.2d 188, 219, certiorari denied June 2, 1958).

Defendants' Proposed Instruction No. 36

Before you may find the existence of an unlawful agreement or conspiracy by circumstantial evidence alone, the facts relied upon must be of such nature and so related that it is the only conclusion that can fairly and reasonably be drawn from them. It is not sufficient that the facts and circumstances merely be consistent with the conclusion sought to be established. They should be inconsistent with any reasonable theory to the contrary.

Given in substance. E.S.V., Judge.

United States v. Aluminum Co. of America (S.D. N.Y. 1939) 1 F.R.D. 1; Standard Oil Company of California v. Moore (9 Cir. 1957) 251 F.2d 188, 210, certiorari denied (June 2, 1958); Metropolitan Casualty Ins. Co. v. Smith & Smith (9 Cir. 1932) 58 F.2d 699.

Defendants' Proposed Instruction No. 37

If you find that any defendant adopted a business practice similar to that of another defendant, this is circumstantial evidence from which various inferences may be drawn. It is plaintiffs' contention that such similar business practice, if any you find, is reasonably consistent only with unlawful agreement or conspiracy among defendants. It is

defendants' contention that such similar business practices as you may find are either the result of the standardized nature of their products or of other economic factors confronting all defendants alike, or the result of the necessity upon each defendant to meet its competition, or the result of a belief independently arrived at by each defendant that such business practice was least expensive, most efficient or otherwise the best course for it to follow.

Plaintiffs have the burden of proof on this issue. You must find for the defendants unless you find that the inference suggested by plaintiffs is the only conclusion that can fairly and reasonably be drawn from the similarity of business practices of any of the defendants.

Given: E.S.V., Judge.

Theatre Enterprises v. Paramount Film Distrib. Corp. (4 Cir. 1953) 201 F.2d 306, affirmed (1954) 346 U.S. 537; Fanchon & Marco Inc. v. Paramount Pictures (S.D. Cal. 1951) 100 F.Supp. 84, affirmed (9 Cir. 1954) 215 F.2d 167, certiorari denied (1953) 345 U.S. 964.

Defendants' Proposed Instruction No. 38

The last instruction which the Court has given you, is intended to advise you as to what is an unlawful agreement or conspiracy. The Court does not mean to suggest by any instruction given by the Court, that the existence of an unlawful agreement or conspiracy has been established. That

question, like the other questions of fact in this case, is for you to decide.

The Court will now instruct you as to the rules which you must follow in evaluating the evidence for the purpose of determining whether or not an unlawful agreement or conspiracy has been proved.

Refused: E.S.V., Judge.

Defendants' Proposed Instruction No. 39

Only if you find (1) that defendants entered into an unlawful conspiracy in violation of the antitrust laws; (2) that they performed overt acts in furtherance thereof; (3) which acts proximately caused injury to the plaintiffs, will you reach the question as to how to fix the plaintiffs' damages, if any. I will give you instructions on the question of damages in a later part of this charge.

Refused: E.S.V., Judge.

Defendants' Proposed Instruction No. 40

Not only must the plaintiffs in this case prove a conspiracy in violation of the antitrust laws; they must, in addition, show that the defendants committed or performed overt acts in furtherance of that unlawful conspiracy. Plaintiffs are private parties suing for damages. This is not a governmental suit. Private parties, unlike the Government, must prove more than a public wrong; they must prove that the public wrong is a private wrong to them. Private civil antitrust actions are founded not upon the mere existence of a conspiracy, but upon injuries which result from the com-

mission of forbidden overt acts by the conspirators. Therefore, no private action accrues from the mere agreement or conspiracy itself, because standing alone a conspiracy does not invade any private rights. The plaintiffs must accordingly prove that in carrying out the conspiracy which they claimed existed, the defendants performed overt acts which have had a direct detrimental impact upon their business. The burden is on the plaintiffs to establish such overt acts.

Given: E.S.V., Judge.

Burnham Chemical Co. v. Borax Consolidated (9 Cir. 1948) 170 F.2d 569, 571; Glenn Coal Co. v. Dickinson Fuel Co. (4 Cir. 1934) 72 F.2d 885, 887; Suckow Borax Mines Consol. v. Borax Consolidated (9 Cir. 1950) 185 F.2d 196, 208; Momand v. Universal Film Exchange (D.Mass. 1942) 43 F.Supp. 996, 1007, affirmed (1 Cir. 1948) 172 F.2d 37; Wolfe v. National Lead (N.D.Cal. 1953) 15 F.R.D. 61.

Defendants' Proposed Instruction No. 41

The court in instructing you concerning the measure of damage does not mean to intimate in any way that plaintiffs are entitled to recover in this case. Neither should the fact that counsel for the parties have discussed the question of damages be considered by you in determining whether or not the plaintiffs are entitled to recover in this case. That is a question which is left solely for you to determine upon the law and the evidence.

Refused: E.S.V., Judge.

Emich Motors Corp. v. General Motors Corp. (7 Cir. 1950), 181 F.2d 70.

Defendants' Proposed Instruction No. 42

In determining whether or not plaintiffs have been injured and damaged by reason of the defendants' alleged unlawful conspiracy, you must determine whether or not plaintiffs have established with reasonable certainty that but for the conspiracy they would have had vanadium products to sell and would have sold them at a profit.

Given: E.S.V., Judge.

Wolfe v. National Lead Company (9 Cir. 1955), 225 F.2d 427, 431.

Defendants' Proposed Instruction No. 43

The damages which you may properly award to plaintiffs, if you find that plaintiffs have any right to recover damages, are limited to those actual damages which can be determined from the evidence, and do not include claimed damages which are merely speculative, remote or uncertain. Actual damages must be proved by facts from which their existence is logically inferable and cannot be supplied by conjecture.

Given: E.S.V., Judge.

Keogh v. C. & N. W. Ry. Co. (1922), 260 U. S. 156, 165; Ronson Patents Corp. v. Sparklets Devices (E.D. Mo. 1953), 112 F. Supp. 676, 692; Ebeling v. Foster & Kleiser Co. (W.D. Wash. 1935), 12 F. Supp. 489.

Defendants' Proposed Instruction No. 44

In determining whether plaintiffs were injured or damaged as a result of the alleged unlawful activities of the defendants, you may consider the conditions of business prevailing at the time, including abnormal shortages in vanadium products caused by war, the effect of government controls upon the maximum sale prices of vanadium products, government purchasing policies for both vanadium ore and finished products, export embargoes, and government priority and allocation regulations upon domestic distribution.

Given: E.S.V., Judge.

Wolfe v. National Lead Company (9 Cir. 1955), 225 F.2d 427, 431.

Defendants' Proposed Instruction No. 45

If you find that plaintiffs stopped such business as they may have had in ferrovanadium or vanadium oxide at a time when they were able to buy vanadium oxide from any supplier, whether that supplier might have been either of the defendants or any other person or Government agency, at prices which would have enabled the plaintiffs to make a profit, then you cannot find that plaintiffs lacked supplies of vanadium products to sell as a result of the activities of the defendants or any of them.

Given: E.S.V., Judge.

Rushing v. Metro-Goldwyn-Mayer Distributing

Corp. (5 Cir. 1954), 214 F.2d 542, 544; American Can Co. v. Russellville Canning Co. (8 Cir. 1951), 191 F.2d 38, 55-56.

Defendants' Proposed Instruction No. 46

You are instructed that plaintiffs are not entitled to recover any element of damages which could have been avoided through the exercise of reasonable efforts on their part. Plaintiffs are not entitled to increase their damages through inaction, but must take all reasonable steps to mitigate their damage and reduce their loss. In determining whether plaintiffs have discharged their duty to mitigate damages, you may consider whether reasonable men in plaintiffs' position would have accepted offers made to them, either before or after they ceased their vanadium business, to supply them with vanadium oxide at prices which would have permitted them to operate at a profit. You may consider whether reasonable men in plaintiffs' position could have made arrangements to process ferrovanadium and whether reasonable men in their position would have made additional efforts to find either suppliers of vanadium oxide or processors of ferro vanadium.

If you find that by any of these means plaintiffs could reasonably have avoided the cessation of their vanadium business or could have recommended it at any later time, you must limit plaintiffs' damages to those losses they would have suffered had they taken such steps.

Given: E.S.V., Judge.

American Can Co. v. Russellville Canning Co. (8 Cir. 1951), 191 F.2d 38, 55-56.

Defendants' Proposed Instruction No. 47

If you find that plaintiffs suffered damage by reason of the alleged unlawful activities of the defendants, you are to proceed to determine the amount of damages so caused to plaintiffs.

In this case plaintiffs' claim for damages is based upon the claim that they lost profits as a result of the alleged unlawful activities of the defendants. Plaintiffs must prove the amount of such lost profits, if any, only by evidence from which a just and reasonable inference can be drawn. You may not speculate as to the amount. Your determination must be based on evidence as to the persons from or through whom plaintiffs would probably have been able to obtain vanadium products, persons to whom plaintiffs would probably have been able to sell the vanadium products they so obtained, and the net profit which plaintiffs would probably have obtained on any such transactions.

Given: E.S.V., Judge.

Wolfe v. National Lead Company (9 Cir. 1955), 225 F.2d 427, 431; Central Coal & Coke Co. v. Hartman (8 Cir. 1901), 111 Fed. 96, 100, 102; O'Halloran v. American Sea Green Slate Co. (2 Cir. 1915), 229 Fed. 77, 81.

Defendants' Proposed Instruction No. 48

In the event that you find by a preponderance of the evidence that plaintiffs were injured by the

acts of the defendants, you are instructed that this alone is not sufficient to permit you to award damages to the plaintiffs. Injury to the plaintiffs individually is not sufficient to warrant recovery by plaintiffs in a civil action under the antitrust laws. Plaintiffs, in addition, must establish by a preponderance of the evidence that the acts which caused them injury were part of an illegal agreement or conspiracy which was reasonably calculated to prejudice the public interest by unduly restricting the free flow of interstate commerce. In other words, even if you should find that there were acts of the defendants directed at plaintiffs alone, this is not sufficient. You must find that defendants were engaged in a conspiracy to injure the general public by restraining the free flow of interstate commerce, and that it was by reason of this general conspiracy that plaintiffs' business was destroyed.

Given: E.S.V., Judge.

Shotkin v. General Electric Co. (10 Cir. 1948), 171 F.2d 236; Feddersen Motors, Inc. v. Ward (10 Cir. 1950), 180 F.2d 519; Klor's Inc. v. Broadway Hale Stores (9 Cir. 1958), CCH Trade Reg. Rep., par. 69,007.

Defendants' Proposed Instruction No. 49

Plaintiffs are in no event entitled to damages for any period prior to October 10, 1941.

Refused: E.S.V., Judge.

Cal Code Civ. Proc., sec. 340, subd. 1.

Defendants' Proposed Instruction No. 49A

Plaintiffs are in no event entitled to damages for any period prior to October 10, 1939.

Given in substance: E.S.V., Judge.

Cal. Code Civ. Proc., sec. 338, subd. 1.

[Endorsed]: Filed June 25, 1958.

[Title of District Court and Cause.]

DEFENDANTS' REQUESTED REVISED AND ADDITIONAL INSTRUCTIONS

May it please the Court:

Defendants respectfully request the court to give the following additional jury instructions Nos. 7A, 21A, 23A, 30A and 50, and withdraw Nos. 7, 21, 23, 34 and 39 of the instructions previously proposed by defendants.

Dated June 20, 1958.

/s/ JOSIAH G. HOLLAND,
/s/ EDWARD R. NEAHER,
/s/ JOHN A. SUTRO,
/s/ ALLAN N. LITTMAN,

Attorneys for Defendant, Vanadium Corporation of America.

/s/ RICHARD J. ARCHER,
/s/ GIRVAN PECK,

Attorneys for Defendants, Union Carbide Corporation and United States Vanadium Corporation.

Defendants' Proposed Instruction No. 7A

The gist of plaintiffs' complaint is that the part of their business concerned with brokerage and

jobbing of vanadium products which they began in July, 1938, was damaged and finally eliminated in 1944 as the alleged result of an alleged unlawful combination and conspiracy among defendants to control the vanadium industry.

Plaintiffs specify that the alleged acts and practices of the defendants which directly and proximately affected them were:

1. Apex Smelting Company of Chicago, Illinois, with which plaintiffs had an exclusive brokerage contract to sell its ferrovanadium production, and under which operations commenced in the spring of 1940, was allegedly compelled to cease the manufacture of ferrovanadium in the spring of 1942 because it was unable to operate profitably for the reason that it was unable to obtain vanadium oxide.

2. The failure of plaintiffs' own operation on Long Island, New York, begun in August, 1942, because of the alleged difficulty of securing raw materials which made it commercially impossible to operate profitably.

3. Imperial Paper and Color Corporation of Glen Falls, New York, was allegedly forced to abandon in 1944 a contract made in that year with plaintiffs, under which plaintiffs were to act as sales agent for Imperial's entire output of ferrovanadium and vanadium oxide. This is alleged to have been due to Imperial's and plaintiffs' inability to [illegible]ure vanadium oxide or vanadium-bearing ores.

Defendants deny that they conspired or combined as aforesaid, or that any act of theirs injured plaintiffs' business in vanadium products.

Given; modified: E.S.V., Judge.

Defendants' Proposed Instruction No. 21A

There are several modes of impeaching or discrediting a witness. He may be impeached by evidence that he has made, at other times, statements inconsistent with his present testimony. He may be impeached by contradictory evidence, or by evidence that he is biased against or hostile toward the party against whom he testifies.

If it is shown that a witness has testified falsely in one part of his testimony, you are at liberty to disregard the testimony of that witness entirely, or in part.

Given: E.S.V., Judge.

Fed. Rules Civ. Proc., Rule 43; Cal. Code Civ. Proc., secs. 2051, 2052.

Defendants' Proposed Instruction No. 23A

This case does not concern monopolization or attempted monopolization or restraint of trade by any one defendant nor by the Carbide companies as a group. It concerns only the plaintiffs' claim that defendant Vanadium Corporation of America and the Carbide defendants together agreed, conspired or combined to monopolize or to restrain trade unreasonably. Unless you find such an agreement there is no violation of law in the present

case. It is only an agreement, conspiracy or combination to do these things with which we are concerned. Unless you find by a preponderance of the evidence that the defendants in the Union Carbide group joined together with the defendant Vanadium Corporation of America in an agreement, combination or conspiracy, by reason of which plaintiffs were injured, you must find for the defendants.

Refused: E.S.V., Judge.

United States v. U. S. Steel Corp. (1920), 251 U. S. 417, 444-445; United States v. Aluminum Co. of America (2 Cir. 1945), 148 F.2d 416, 432; Alexander Milburn v. Union Carbide & Carbon Corp. (4 Cir. 1926), 15 F.2d 678, certiorari denied (1927) 273 U. S. 757.

Defendants' Proposed Instruction No. 30-A

The Court instructs you that to the extent that any defendant acted on behalf of the Government of the United States or on behalf of one of its agencies or services, and in the scope of its duties in that regard, any such actions cannot be violations of the antitrust laws. No such actions form any proper part of plaintiffs' proof of conspiracy to monopolize or to restrain trade in the present case, nor may plaintiffs recover any damages which may have resulted from such actions.

Given: E.S.V., Judge.

Parker v. Brown (1943), 317 U. S. 341, 352; Stroud v. Benson (E.D. N.C. 1957), 155 F. Supp.

482, 493; Keogh v. C. & W. Ry. Co. (1922), 260 U. S. 156, 165.

Defendants' Proposed Instruction No. 50

In measuring the damages, if any, to which plaintiffs may be entitled you are not to consider gross profits in fixing the amount of damages. You must limit your consideration to the net profits or losses of the plaintiffs in determining what net profits, if any, they lost by reason of the unlawful activities of the defendants.

Plaintiffs must satisfy you by a preponderance of the evidence that they would in fact have made net profits in addition to any net profits they actually made and they must furnish you with a fair and reasonably accurate standard for measuring just what that additional net profit would have been. If they have not furnished you with such a standard and if you have no means of ascertaining what their damages may be other than by speculation and guess work, in such event you must return a verdict for the defendants.

Given, as modified: E.S.V., Judge.

Wolfe v. National Lead Company (9 Cir. 1955), 225 F.2d 427.

[Endorsed]: Filed June 25, 1958.

[Title of District Court and Cause.]

VERDICT

We, the Jury, find in favor of the Defendants.

/s/ JOB P. DODD, JR.,
Foreman.

Filed June 24, 1958, at 4 o'clock and 50 minutes p.m., by Willard I. Wesling, Deputy Clerk.

[Endorsed]: Filed June 24, 1958.

In the District Court of the United States, Northern District of California, Southern Division

No. 29008-H

CONTINENTAL ORE COMPANY, et al.,
Plaintiffs,

vs.

UNION CARBIDE AND CARBON CORPORATION, et al., Defendants.

JUDGMENT

This action having been tried and a general verdict for the defendants having been duly rendered on the 24th day of June, 1958,

It is considered and adjudged by the Court that the plaintiffs take nothing by their complaint and that the same be dismissed and that the defendants

have judgment on the verdict against the plaintiffs upon the issues in this action and recover from the said plaintiffs their costs taxed at $.....

By the Court: June 25, 1958.

/s/ EDGAR S. VAUGHT,
United States District Judge.

Approved as to form:

/s/ JOSEPH L. ALIOTO,
Attorney for Plaintiffs,

/s/ JOSIAH G. HOLLAND,
Attorney for Defendant, Vanadium Corporation of America,

/s/ RICHARD J. ARCHER,
Attorney for Defendants, Union Carbide Corporation and United States Vanadium Corporation.

[Endorsed]: Filed June 25, 1958.

[Title of District Court and Cause.]

NOTICE OF APPEAL

Notice is hereby given that plaintiffs in the above-entitled action, Continental Ore Company, a partnership, and Henry J. Leir, Erna D. Leir and Lina Schloss, as individuals and as partners under the trade name and style of Continental Ore Company, hereby appeal to the Court of Appeals for the

Ninth Circuit from the Judgment entered in this action on June 25, 1958.

Dated June 30, 1958.

/s/ JOSEPH L. ALIOTO,
Attorney for Plaintiffs.

[Endorsed]: Filed July 15, 1958.

[Title of District Court and Cause.]

CERTIFICATE OF CLERK

I, C. W. Calbreath, Clerk of the United States District Court for the Northern District of California, hereby certify the foregoing and accompanying documents and exhibits, listed below, are the originals filed in this Court in the above-entitled case and constitute the record on appeal herein as designated by counsel for the parties:

Excerpt from Docket Entries;

Complaint;

Answer of Vanadium Corporation of America;

Answer of Union Carbide and Carbon Corporation and United States Vanadium Corporation;

Interrogatories by Plaintiff to Union Carbide and Carbon Corporation and Vanadium Corporation of America;

Objections of Union Carbide and Carbon Corporation to Interrogatories by Plaintiff;

Notice and Objections of Vanadium Corporation of America to Interrogatories by Plaintiff;

Answers of Union Carbide and Carbon Corporation to Interrogatories by Plaintiff;

Answers of Union Carbide and Carbon Corporation to Interrogatories by Plaintiff;

Order on Objections to Interrogatories;

Answers of Union Carbide and Carbon Corporation to Interrogatories by Plaintiff;

Answers of Vanadium Corporation of America to Interrogatories by Plaintiffs;

Ruling of Court on Defendants' Objections to Demand for Production;

Answers of Vanadium Corporation of America to Certain Interrogatories by Plaintiffs;

Supplement to Answers of Union Carbide and Carbon Corporation to Interrogatories by Plaintiff;

Interrogatories by Union Carbide and Carbon Corporation and United States Vanadium Corporation to Plaintiffs;

Answers of Plaintiffs to Interrogatories by Defendants;

Stipulation substituting "Vanadium Corporation of America" for "Union Carbide and Carbon Corporation and United States Vanadium Corporation";

Order Granting Leave to file Amendment to Answer of Vanadium Corporation of America;

Amendment to Answer of Vanadium Corporation of America;

Order Granting Leave to file Amendment to Answer of Union Carbide and Carbon Corporation and United States Vanadium Corporation;

Amendment to Answer of Union Carbide and Carbon Corporation and United States Vanadium Corporation;

Request of Plaintiff for Admissions by Defendants;

Objections of Union Carbide Corporation and United States Vanadium Corporation to request of Plaintiff for Admissions;

Response of Union Carbide Corporation and United States Vanadium Corporation to Request for Admissions;

Response of Vanadium Corporation of America to Request for Admissions;

Interrogatories by Plaintiffs to Defendants;

Objections of Union Carbide Corporation and United States Vanadium Corporation to Interrogatories by Plaintiff;

Order on Objections of Union Carbide Corporation and United States Vanadium Corporation to Interrogatories by Plaintiff;

Verdict;

Judgment;

Memorandum of Union Carbide Corporation and United States Vanadium Corporation Regarding Actions Undertaken on Behalf of the Government of Canada in Time of War, with Exhibits thereto;

Notice of Appeal;

Cost Bond on Appeal;

Order Staying Execution;

Supersedeas Bond;

Appellants' Designation of Record on Appeal;

Appellees' Designation of Record on Appeal;

Reporter's Transcript of Trial Proceedings;

Plaintiffs' Exhibits 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 66, 67-A, 67-B, 67-C, 67-D, 67-E, 67-F, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 142, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170 and 171;

Defendant, Union Carbide and Carbon Corporation, exhibits A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, 2-a, 2-b, 2-c, 2-d, 2-e, 2-f, 2-g, 2-h, 2-i, 2-j, 2-k, 2-l, 2-m, 2-n, 2-o, 2-p, 2-q, 2-r, 2-s, 2-t, 2-u, 2-v, 2-w, 2-x, 2-y, 2-z, 3-a, 3-b, 3-c, 3-d, 3-e, 3-f, 3-g, 3-h, 3-i, 3-j, 3-k, 3-l, 3-m, 3-n, 3-o, 3-p, 3-q, 3-r, 3-s, 3-t, 3-u, 3-v, 3-w, 3-x, 3-y, 3-z, 4-a, 4-b, 4-c, 4-d, 4-e, 4-f, 4-g, 4-h, 4-i, 4-j, 4-k, 4-l, 4-m, 4-n, 4-o, 4-p, 4-q, 4-r, 4-s, 4-t, 4-u, 4-v, 4-w, 4-x, 4-y, 4-z, 5-a, 5-b, 5-c, 5-d, 5-e, 5-f, 5-g, 5-h, 5-i, 5-j, 5-k, 5-l, 5-m, 5-n, 5-o, 5-p, 5-q, 5-r, 5-s, and 5-t;

Defendant, Vanadium Corporation, exhibits 1-a, 1-b, 1-c, 1-d, 1-e, 1-f, 1-g, 1-h, 1-i, 1-j, 1-k, 1-l, 1-m, 1-n, 1-o, 1-p, 1-q, 1-r, 1-s, 1-t, 1-u, 1-v, 1-w, 1-x, 1-y, 1-z, 2-a, 2-b, 2-c, 2-d, 2-e, 2-f, 2-g, 2-h, 2-i, 2-j, 2-k, 2-l, 2-m, 2-n, 2-o and 2-p.

I further certify that the Plaintiffs' Exhibits 32, 65, 126, 139, 140 and 141 are not included in this record for the reason they do not appear in the records in this office.

In witness whereof, I have hereunto set my hand and affixed the seal of said District Court this 21st day of August, 1958.

[Seal] C. W. CALBREATH,
Clerk,

/s/ By MARGARET P. BLAIR,
Deputy Clerk.

Also 2 maps not marked.

The United States District Court, Northern District of California, Southern Division

No. 29008

CONTINENTAL ORE COMPANY, a partnership, et al., Plaintiffs,

vs.

UNION CARBIDE AND CARBON CORPORATION, et al., Defendants.

REPORTER'S TRANSCRIPT

Monday, June 2, 1958, 10:00 o'clock a.m.

Before: Hon. Edgar S. Vaught, Judge.
Appearances: For the Plaintiffs: Joseph L.

Alioto, Maxwell Keith, John E. Sullivan, Donald Garibaldi; for the Defendant, Union Carbide and Carbon Corporation: Messrs. Morrison, Forester, Holloway, Shuman & Clark, by Richard J. Archer; for the Defendant, Vanadium Corporation of America: Messrs. Pillsbury, Madison & Sutro, by Allan N. Littman, J. G. Holland and E. R. Neaher.

* * * * * [1*]

Mr. Holland: In any event, these facts, ladies and gentlemen, were all in the possession of the Antitrust Division of the United States Government which brought a case against these defendants, a criminal case, charging these [55] defendants with violation of the antitrust laws. That case was tried in Denver, Colorado, a year ago, approximately, this same time, and resulted in the acquittal of all of the defendants in this case, and that's another reason why we feel that these early matters should not be gone into and the case should not be dragged out by them. We feel that the case should start with the coming of Mr. Lear to this country.

* * * * *

Mr. Alioto: If your Honor please, we have had a good deal of pre-trial discovery with respect to undisputed facts and particularly with respect to the existence of certain mills and the statistics on the sales of oxide and ferrovanadium. At this time plaintiff will offer its exhibits first in order responses to interrogatories previously propounded

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* Page numbers appearing at top of page of Reporter's Transcript of Record.

to both Union Carbide and Vanadium Corporation of America which set forth the production of fused vanadium oxides from various mills of each of the defendants for the period 1933 to 1947.

Mr. Archer: What is the reference number?

Mr. Alioto: This is 8-G of yours, United States Vanadium Corporation, and it is Exhibit 3 of the Vanadium Corporation of America, setting forth the total vanadium oxide from 1933 to 1947, and then there is a quantity of other vanadium products submitted by Union Carbide under Interrogatory 8-G. We offer this as plaintiff's exhibit first in order.

Mr. Archer: 8-G is in that?

Mr. Alioto: Yes.

Mr. Holland: If the Court please, we have no objection to the statistics, but this raises right off the bat the question of how far back we are going to go. These statistics go back to the year 1933.

The Court: You will be limited to what has transpired since 1938.

Mr. Alioto: How does your Honor wish to handle [63] this physically so far as the document itself is concerned? All these statistics are on the same document. We can have them rewritten at some later time.

The Court: Very well. It will be admitted with the understanding that that portion of it which

relates to what occurred prior to 1938 will not be submitted to the Jury.

(The document in question was thereupon received in evidence and marked Plaintiff's Exhibit 1.)

Mr. Alioto: We will offer as plaintiff's exhibit next in order the figures heretofore offered by the defendants, Vanadium Corporation of America and Union Carbide Company with respect to the quantitative yearly total of ferro-vanadium produced in the years 1933 to 1947.

The Court: The same ruling will be made on that.

(The document in question was thereupon received in evidence and marked Plaintiff's Exhibit 2.)

Mr. Alioto: This matter comes up, I take it, on an objection to the figures prior to 1938.

The Court: Yes.

Mr. Alioto: And I take it nothing need be done to preserve our record on the matter.

The Court: No.

Mr. Alioto: We offer as next in evidence with respect to both corporations figures previously secured by pre-trial discovery relating to the domestic sales of the [64] Vanadium Corporation of America and of Union Carbide of total pounds of ferro-vanadium and pentoxide in the years 1933 to 1944. They are in such form that all these figures are on one sheet, your Honor.

The Court: That will be admitted insofar as it refers to the sales after 1938.

(The document in question was thereupon received in evidence and marked Plaintiff's Exhibit 3.)

Mr. Alioto: At this time, if your Honor please, we offer as our exhibit next in order the price lists of the Union Carbide Company for a period in 1933 up through 1944, showing the prices at which vanadium products were sold by the Union Carbide Company.

Mr. Archer: May I see that?

Mr. Alioto: Yes.

Mr. Archer: One of these was corrected. The vanadium oxide prices are not correct. You have them in the answers to the requests for admissions. If you want to put it in subject to correction, that is all right.

Mr. Alioto: The problem is they are not segregated here so I do not see how I could have an alternative. We will put the other answer in and that will clearly appear, I think. We will offer it subject to that condition, if your Honor please.

The Court: Very well. That will be admitted insofar as it relates to matters after 1938.

(The document in question was thereupon received in evidence and marked Plaintiff's Exhibit 4.)

Mr. Alioto: Plaintiff offers as its exhibit next in order the price lists of the Vanadium Corporation of America covering the period of time from 1933—the prices of ferro-vanadium and pentoxide—down to the period of time through 1945.

The Court: Same ruling.

(The document in question was thereupon received in evidence and marked Plaintiff's Exhibit 5.)

Mr. Alioto: If your Honor please, we won't stop now to read some of these things to the Jury. We think we can present them in some kind of tabular form that will make some sense and be intelligible.

We offer now pre-trial statements of the Vanadium Corporation of America setting forth the location of the mills of that company and the time of acquisition of those mills.

The Court: What dates does that refer to?

Mr. Alioto: If your Honor please, the date indicates the original acquisition, for example, on September 16th, 1919, of a plant at Bridgeville, but they had that plant during the entire period of time here involved.

Mr. Holland: May I see it?

Mr. Alioto: Yes. [66]

Mr. Holland: We have no objection to that.

Mr. Alioto: Attached to that same exhibit, if your Honor please, is the same information with respect to the United States Vanadium Corporation showing the location of their mills and the location of their plants for the manufacture of ferro-vanadium as well.

Mr. Holland: Do you have the references to the interrogatories so I can write them down? It will save me time looking at them.

Mr. Alioto: This one is in Interrogatory Number 7.

(The document referred to was thereupon received in evidence and marked Plaintiff's Exhibit 6.)

[See Book of Exhibits.]

Mr. Alioto: Along those same lines, giving more specific dates with respect to the acquisition of certain plants, we offer the Answer of the Vanadium Corporation of America to Interrogatory Number 7 that we acquired in the pre-trial proceedings.

Mr. Holland: Is the question on there?

Mr. Alioto: The question reads, "State the location of any mills and refineries for the processing of vanadium bearing materials or for the manufacture of ferro-vanadium owned, operated or leased by you or your subsidiaries and the length of time each has been under the ownership and lease."

Mr. Holland: We object to the extent that the question calls for mills owned by the defendant or leased during [67] a period prior to 1938.

The Court: Does that limit the time?

Mr. Alioto: If your Honor please, so far as I know, all the mills and the properties set out here were operated by the Vanadium Corporation after 1938.

The Court: Very well. Let it be admitted.

(The document referred to was thereupon received in evidence and marked Plaintiff's Exhibit 7.)

[See Book of Exhibits.]

Mr. Alioto: We offer as our exhibit next in order the Answer of Vanadium Corporation of

America to Interrogatory Number 17, setting forth the volume by years of vanadium oxide purchased from Union Carbide by the Vanadium Corporation of America for the period from 1933 through 1939 and the prices at which this vanadium oxide was purchased by these defendants.

Mr. Holland: That is subject to the same ruling, if your Honor please?

Mr. Alioto: I submit, if the Court please, I would like to make a statement with respect to that.

The Court: It will be admitted insofar as it involves 1938 and after, not prior thereto.

(The document referred to was thereupon received in evidence and marked Plaintiff's Exhibit 8.)

[See Book of Exhibits.]

Mr. Alioto: We will offer next in evidence the Answer to Interrogatory Number 19, which discloses a joint operation of certain vanadium bearing ore mines by the Vanadium [68] Corporation of America and Union Carbide during the year 1939. That is the Answer by each of the defendants in this case.

Mr. Archer: This refers to the years 1939 and 1940, your Honor.

The Court: Admit it.

(The document referred to was thereupon received in evidence and marked Plaintiff's Exhibit 9.)

Mr. Holland: We would like to enter our objection to the admission of that exhibit at all in evidence in that this is not based on a period of time, your Honor, because this comes after the

1938 period. This was an agreement under which, on payment of a toll charge, the United States Vanadium Corporation mined and milled ore belonging to the Vanadium Corporation, and delivered the oxide to the Vanadium Corporation, paying a toll charge of 65 cents to 75 cents a pound. We make the objection for the reason that we are concerned here with activities or alleged activities which damaged Mr. Leir, and this has no evidentiary bearing upon the damage suit.

Mr. Alioto: I submit, if your Honor please, that that is being offered under the issue of conspiracy and combination to violate the anti-trust laws during the period of time in question.

The Court: It may be admitted. Exception allowed. I do not see its materiality now, but we will come to that later. [69]

Mr. Archer: Your Honor, may I interpose here just a moment? Rather than have me stand up every time Mr. Holland stands up, could it be understood that if one of us makes an objection it will go for both unless——

Mr. Holland: Unless disavowed.

Mr. Archer: Unless disavowed.

The Court: I suppose that last won't be considered as a conspiracy.

Mr. Alioto: I am sure we will have a lot of that during this trial, if your Honor please, and more so than we had in the older days.

If your Honor please, I understand the Court's ruling with respect to the period of time involved. For purposes of the record, however, we at this

time think that in the sequence of the presentation we should offer into evidence the basic agreement for the sale of a million pounds of vanadium oxide, one million to one and a quarter million from one defendant to the other. The contract is dated September, 1933, and there are other contracts bringing that up through January, 1936. We will offer that in evidence at this point.

Mr. Holland: We object, your Honor.

The Court: Objection sustained.

Mr. Alioto: In a separate category are similar contracts for the sale of material between one defendant to the other which are dated November 18th, 1938 and June 30th, [70] 1939, respectively. One is for the sale of 130,000 pounds of vanadium oxide at 80 cents a pound and the other is for the sale of one carload at 80 cents a pound with a correction to 65 cents a pound, the first date being November 18th, 1938, and the second June the 30th, 1939. We offer them jointly as one exhibit.

Mr. Holland: Your Honor, we enter the same objection that we did to the—not based on time—the one you overruled.

The Court: This is within the date period. Overruled. Exception allowed.

Mr. Alioto: This is during the same period of time they were refusing to supply oxide to the plaintiff.

Mr. Holland: If the Court please, may I ask that Mr. Alioto in offering his exhibits, since there is a question of admissibility, not to quote imme-

diately the exhibits until they have been admitted?

Mr. Alioto: That exhibit has been admitted.

The Court: The exhibit will be admitted. Exception allowed.

(The document referred to was thereupon received in evidence and marked Plaintiff's Exhibit 10.)

Mr. Alioto: We offer as our exhibit next in order, your Honor, a document dated September 1944, from Mr. J. L. Robinson of the United States Vanadium Corporation, that [71] is, the Union Carbide group, to Mr. Blair Burwell, Vice-President of the United States Vanadium Corporation, which sets forth a history of ore prices charged by the United States Vanadium Corporation from October of 1938 through May of 1944. This is the price list of the pricing formula of the United States Vanadium Corporation for the purchase of ore, and we expect to offer following this the same document of prices paid by Vanadium Corporation for ore. We will offer it in evidence.

The Court: Submit it to Counsel, please. Let it be admitted.

Mr. Alioto: I suggest that they be admitted as one exhibit.

(The documents referred to were thereupon received in evidence and marked Plaintiff's Exhibit 11.)

[See Book of Exhibits.]

Mr. Alioto: We offer in evidence as our exhibit next in order the mining claims on vanadium bearing ore owned by the defendant United States

Vanadium Corporation. These mining claims we secured in answer to an interrogatory, if your Honor please, and they list the date of acquisition of these various mining claims as well as the location of the mining claims involved.

Mr. Archer: A great many of these are prior to 1938 and on that ground I object.

The Court: Are any of them prior to 1938?

Mr. Alioto: Yes, your Honor. This is their [72] entire acquisition program, but the exact date is shown in each case. Many of them are within the period, many prior to the period.

Mr. Archer: This is patented and non-patented mining claims containing vanadium bearing ore which have been owned by United States Vanadium Corporation, and then it lists the date of acquisition. To those that show prior to 1938 I object.

The Court: The objection is sustained as to those prior to 1938.

Mr. Alioto: May I state in respect to those, and I think Mr. Archer can check me if I am inaccurate, that though acquired prior to 1938, they were held in 1938 and forward.

The Court: You can state what they held in 1938.

Mr. Alioto: Well, all of these were held at that time, if your Honor please. The date of acquisition —in other words, they may have acquired it in 1927 but they had it 1938 on.

The Court: How would the date of acquisition be material?

Mr. Alioto: It simply shows the date of acquisition, if your Honor please, but these are mining claims in existence as of 1938.

The Court: That is all right. Let it be admitted.

(The document referred to was thereupon received in evidence and marked Plaintiff's Exhibit 12.)

[See Book of Exhibits.]

Mr. Alioto: We offer the same kind of list of mining claims on the Colorado Plateau owned by the defendant Vanadium Corporation of America.

Mr. Holland: There is no substantial merit to this, but to keep my position consistent I will object to that prior to 1938. Practically everything was acquired after 1938.

The Court: Admit it.

(The document referred to was thereupon received in evidence and marked Plaintiff's Exhibit 13.)

Mr. Alioto: We offer as our exhibit next in order, pursuant to pre-trial discovery, a document setting forth all of the purchases of vanadium ore concentrates and vanadium source materials made by the Vanadium Corporation of America from the dates 1933 to 1944. The document does not segregate them in any other way as to date.

Mr. Holland: To which we object to all references prior to 1938, your Honor.

The Court: The objection is sustained. It will be admitted without exception.

(The document referred to was thereupon received in evidence and marked Plaintiff's Exhibit 14.)

Mr. Alioto: We offer a similar document secured in pre-trial discovery prepared by the Union Carbide organization showing purchases made from the period 1933—but there [74] are only a few purchases made then—through 1942 in the one case, this being a statement of flue dust, vanadic acid and ferro-vanadium purchased and a statement showing the vanadium bearing materials purchased from others, excluding vanadium ore, during the period 1936 to 1945. However, the document, though requesting information for that period, has the information in the years 1939, 1940, 1941, 1942, 1943 and 1944. I do not see anything of 1936 on that document. These are materials purchased from independent sources, so-called.

Mr. Archer: There are a few 1933 purchases. I do not think they are particularly significant, but to preserve the record I will make the same objection.

The Court: The same order will be made.

(The document referred to was thereupon received in evidence and marked Plaintiff's Exhibit 15.)

Mr. Alioto: We offer next, if your Honor please, a document secured in pre-trial discovery which sets forth the identity of the purchasers of vanadium products from these defendants, and this document is set forth to show the buyers of vanadium products they had in each of the years from

1933 to 1944, disclosing whether or not they purchased in that year. We will offer that as plaintiff's exhibit next in order.

Mr. Holland: To which we enter the chronological objection, objecting to anything prior to 1938.

The Court: The objection will be sustained as to all items prior to 1938.

(The documents referred to were thereupon received in evidence and marked Plaintiff's Exhibit 16.)

Mr. Alioto: We offer as against Mr. Holland's client, the Vanadium Corporation of America, the same listing with respect to customers. This is a breakdown setting forth the customers for each of the years from 1933 through 1944.

Mr. Holland: I am sorry. I thought you said the last one.

Mr. Alioto: Union Carbide was the one offered previously.

Mr. Holland: I object to this one on anything prior to 1938.

The Court: The same ruling will apply. That portion prior to 1938 will be excepted.

(The documents referred to were thereupon received in evidence and marked Plaintiff's Exhibit 17.)

Mr. Alioto: We offer, if your Honor please, a statistical study prepared by the Union Carbide defendants or one of its affiliates setting forth the production from each of its plants for the period—it comes from their file—for the period 1927 to

1945, showing the production from each of its plants as well as production from other plants, such as Gateway Alloys, Vanadium Corporation of America, the production, both private and governmental, of the Vitro Chemical [76] Company, North Continental Mines, Blanding, Nisley and Wilson and others. We offer that as plaintiff's exhibit next in order. It is on one document, if your Honor please, which comes from the files of the defendant in this form.

Mr. Archer: Your Honor, this document was handed to me by Counsel the other day and I have not been able to check either the accuracy or where it was made and it does go back to 1926. It also has certain Canadian figures and I would object entirely to the Canadian figures on the ground of the memorandum which I previously submitted, and I would have to object at this time on the ground that no foundation was laid. I have not been able to check to see whether this was made by us. It is my guess that this was used, prepared, or one of the papers used in preparing an exhibit for the prior litigation, and so consequently I do not believe it would be a business record of our company. It would be specially prepared, and until I could object to it I would want to object to it on the ground there is no foundation.

The Court: What is the statement of Counsel as to where that came from?

Mr. Alioto: This document came from the gentleman who is the Vice-President and a Director of the United States Vanadium Company, Mr. Bur-

well. However, since the question of foundation has been raised, if the Court please, I think it is admissible, but Mr. Burwell is going to be here, and we will [77] ask him about it, unless the Court wants to rule on it at this time.

The Court: Let it be admitted subject to further objection except that portion prior to 1938.

objection except that portion prior to 1938.

Mr. Holland: Are you just offering that against Union Carbide?

Mr. Alioto: I am offering it at this point against Union Carbide only.

Mr. Archer: Did your Honor rule on the Canadian statistics in there?

Mr. Alioto: We think they are relevant, if your Honor please.

The Court: Canadian?

Mr. Alioto: Yes, Mr. Leir marketed in the Canadian market from the United States.

The Court: When?

Mr. Alioto: It covers the period, as everything else does, of this study made by them, not by us. It covers the period 1927 to 1945 but has the Canadian figures for the period 1931 to 1945 for each year.

Mr. Archer: I would object to not only prior to 1938 but even through the later period because, as alleged in the Complaint, the department we are talking about, Electromet of Canada, was operating as the agent of the Canadian Government.

Mr. Alioto: I do not think we have reached that question here. This is simply the status of the

Canadian market at the time. It was a market in which we marketed.

The Court: Let it be admitted with the exception of what occurred prior to 1938, and this other matter can be raised later.

(The document referred to was thereupon received in evidence and marked Plaintiff's Exhibit 18.)

Mr. Alioto: If your Honor please, we offer as our exhibit next in order—and again I say we make no attempt to read them to the Jury at this time but to have them in some kind of tabular form at a later time after the evidence has been admitted—we offer in evidence as our exhibit next in order the number of total requirements contracts for ferro-vanadium and for vanadium oxide made by each of these defendants, as well as the volume in pounds that was sold under these total requirements contracts. They cover the years 1933 to 1949. As I say, the answers were procured for all those years without segregation on one piece of paper.

Mr. Archer: How do you tell which is which defendant?

Mr. Alioto: One shows, "VCA"——

Mr. Archer: I think you ought to mark on there——

Mr. Alioto: You have no objection to my marking "Union Carbide"? This is an exhibit, if your Honor please, to an interrogatory and the identification of the corporation was [79] was made on the first page of the interrogatory. Is there any question about that, Mr. Archer?

Mr. Archer: I assume that is correct.

Mr. Alioto: If there is any question about it, we will substitute.

Mr. Holland: We make the usual objection to the period prior to 1938 and then, your Honor, I think we should point out that, as alleged in the Complaint, and as we admit, and as these figures show, we, as all others in the ferro-alloy industry, entered into requirements contracts with the steel mills. We would make a contract with a steel mill to supply all of its requirements for a year, whatever they would give us. I believe Mr. Leir has done the same thing and also has taken requirements contracts from one of the defendants at least here. We do not think that it has any probative value whatever in this case, the fact that we made the usual, customary total requirements contract with the purchaser year by year in the industry which we did.

Mr. Alioto: I submit, your Honor, that if the evidence shows that two people have 100% of an industry——

The Court: What difference does it make if they owned it all?

Mr. Alioto: That is the point I want to make, if your Honor please. If two people have 100% of an industry, and each of them makes total requirements contracts which [80] obligate the buyer not to buy from anybody else——

The Court: Well, if there is nobody else interested in the proposition but those two, how would that be a monopoly?

Mr. Alioto: But there was somebody interested in the proposition, because we tried to sell them and we came up to a situation where people—

The Court: Is it your contention they were required to sell if they didn't want to sell?

Mr. Alioto: No, I do not think I have made plain the background of this point. These are requirement contracts between the Vanadium Corporation of America, for example, and its customers, and between Union Carbide and its customers, which obligate its buyers, the steel mills and others, not to purchase from the plaintiff.

The Court: Is that in the exhibit now, your statement?

Mr. Alioto: Yes, your Honor.

Mr. Holland: No.

The Court: Let it be admitted except that portion that relates to incidents prior to 1938.

(The document referred to was thereupon received in evidence and marked Plaintiff's Exhibit 19.)

The Court: Exception allowed.

Mr. Alioto: Now, then, we offer, if your Honor please, a statement of profits from the year 1933 to 1947 in [81] the uranium-vanadium business of each of the defendants involved, being answers to Interrogatory Number 33, as previously pointed out, to each of these defendants. And again, if your Honor please, that does cover the period 1933 to 1947 on one sheet of paper without segregation, but we offer the entire document in order to preserve our record.

The Court: Let it be admitted subject to the elimination of that portion prior to 1938.

Mr. Alioto: Thank you.

(The document referred to was thereupon received in evidence and marked Plaintiff's Exhibit 20.)

Mr. Archer: Your Honor, I guess I was a little slow. May the record show an objection on the grounds that our profits on these materials is irrelevant, ours being an entirely different business from the plaintiff's business.

The Court: What is the purpose of the exhibit?

Mr. Alioto: The purpose, if your Honor please, is that it appears from recent decisions of the Court of Appeals for the Ninth Circuit——

The Court: Don't argue the case. Just tell me what the exhibit is.

Mr. Alioto: The purpose is to show the facts, the state of the industry, the vanadium industry, and the facts relating to the vanadium industry during the period of time when the plaintiff was operating in it. [82]

The Court: The objection will be sustained. Exception allowed.

Mr. Alioto: We offer next, if your Honor please, a statement secured in prior discovery in this case setting forth the vanadium bearing ores mined by each of the defendants for the period 1933 to 1947 in terms of——

The Court: What is that again? State that again.

Mr. Alioto: These are the vanadium bearing

ores mined by them and vanadium bearing ores purchased by each of the defendants for the period 1933 to 1947. We will offer that in evidence as our exhibit next in order.

Mr. Holland: Objection to anything prior to 1938, your Honor.

The Court: It will be admitted subject to the elimination of that portion prior to 1938.

(The document referred to was thereupon received in evidence and marked Plaintiff's Exhibit 21.)

Mr. Alioto: Finally, on this statistical matter, if your Honor please, we offer in evidence the certified copies from the Bureau of Mines of the United States setting forth for the United States Vanadium Corporation all of the ore produced by it in terms of V_2O_5 content, that is, in terms of vanadium content, for the years 1933 to 1947.

Mr. Archer: The only year prior to 1938 is 1937 in here, your Honor. [83]

The Court: I beg your pardon?

Mr. Archer: It shows the year 1937 on this exhibit of the United States Vanadium Corporation and after that year we object. It shows production only for each of the years 1937 to and including 1947, and I object to the year 1937 and then 1945 to 1947 after the plaintiff went out of business.

The Court: It is sustained so far as 1937 is concerned. I do not know about the other yet.

Mr. Holland: Is this offered for the purpose of impeaching our figures? I see some slight variations here.

Mr. Alioto: No, you will recall your figures are based upon ores mined, not with respect to vanadium content. Then after the proceedings before Judge Harris we worked out an arrangement where your reports to the Bureau of Mines setting forth the V_2O_5 content would be done. It was pursuant to that arrangement that we secured those figures, and they show the situation for 1940 to 1947.

Mr. Holland: There is nothing before 1938 on our exhibit.

The Court: Very well.

(The document referred to was thereupon received in evidence and marked Plaintiff's Exhibit 22.)

[See Book of Exhibits.]

Mr. Alioto: I offer now the material for the Vanadium Corporation of America that Mr. Holland and I have just discussed as plaintiff's exhibit next in order. [84]

(The document referred to was thereupon received in evidence and marked Plaintiff's Exhibit 23.)

[See Book of Exhibits.]

Mr. Alioto: Now we offer in evidence, if your Honor please, and I think this will conclude our statistical picture from which we will offer tabulations at a later point, the answers to Interrogatory 8-H by the Union Carbide Corporation and by Vanadium Corporation of America, setting forth the quantity of vanadium oxide and vanadium bearing ore, and in the case of the Vanadium Corporation of America, ferro-vanadium as well, which each of

these defendants purchased from the Metals Reserve Company in the years 1943 and 1944.

Mr. Holland: No objection.

The Court: Let it be admitted.

(The document referred to was thereupon received in evidence and marked Plaintiff's Exhibit 24.)

Mr. Alioto: At this time, if your Honor please, the plaintiff proposes to call its first witness. I note it is three o'clock and I do not know your Honor's practice with respect to recesses here.

The Court: We will have a ten minute recess at this time.

(Recess.) [85]

Mr. Alioto: If your Honor please, there are two short matters I would like to clear up. I believe that during the objections on the matter of the chronology of the years involved that counsel and I sometimes used the expression "after '38" or "since '38" and sometimes "before '38." Now, it is my understanding that the ruling up to this point excludes matters prior to '38. Is that correct?

The Court: That's right.

Mr. Alioto: So that the year '38 would be in?

The Court: Well, it would be the date——

Mr. Alioto: The date of the Apex contract is July of 1938, the first contract.

The Court: The first act of your client.

Mr. Alioto: It would be July of 1938.

The Court: That would make it prior to July of 1938.

Mr. Alioto: All right.

Now, then, if your Honor please, the Court excluded a document with respect to the profits of this company from the years '33 to '47, and I would like it marked for identification so that it will be in the record.

The Clerk: Defendants' 20 marked for identification.

(Document re profits of defendants 1933-1947 marked for identification Plaintiff's Exhibit 20.) [86]

Mr. Alioto: The Court also excluded——

The Court: What is it? I didn't get your statement as to what it is you are offering.

Mr. Alioto: This exhibit was excluded by the Court which showed the profits of these defendants and I would like it marked so that we will have a record on the exclusion, if your Honor please, marked for identification.

The Court: The objection is sustained on that.

The Clerk: That is Exhibit 20 for identification.

Mr. Alioto: The Court also excluded the contract of September, 1933, between the two defendants, which we would also like marked for identification so that it will be identified in the record as an excluded contract.

The Clerk: Plaintiff's Exhibit 25 for identification.

(Contract of September, 1933, between defendants marked for identification Plaintiff's Exhibit 25.)

Mr. Alioto: The plaintiff will call Mr. Blair Burwell.

BLAIR BURWELL

a witness on behalf of the plaintiff, having been first duly sworn, testified as follows:

The Clerk: State your name, your occupation and your address to the Court and jury. [87]

The Witness: My name is Blair Burwell. My profession is mining engineer. My residence is in Grand Junction, Colorado.

Direct Examination

Q. (By Mr. Alioto): Mr. Burwell, you were at one time a vice president of the United States Vanadium Corporation, were you not?

A. That's correct.

Q. You were also a——

The Court: Just a moment. What is that corporation?

Mr. Alioto: A vice president of the United States Vanadium Corporation, which is one of the affiliates of the Union Carbide.

The Court: All right. I understand.

Q. (By Mr. Alioto): You were also a director of the United States Vanadium Corporation, were you not, Mr. Burwell?

A. During a period of that time.

Q. And you were also the general mining superintendent of that organization for a period of time, were you not?

A. No, I was the assistant to the vice president in charge of operations, general assistant of the manager or—we never used the "superintendent of operation" term, just to be correct.

(Testimony of Blair Burwell.)

Q. Now, Mr. Burwell, would you be good enough to tell us something about your professional and educational background and experience? [88]

A. By education, I first served in the school of hard knocks, of course as all mining engineers do, and I started first science and engineering under—at the University of Denver in 1910, particularly the rare metals—under a very good teacher, Dr. Engle. And after a break, during the war, and while I was earning money to go through school, I entered the Colorado School of Mines and graduated in 1919 with a degree of engineering in mines, with particular attention and majored in what was called the rare metals, which was radium, uranium, and all these things that involved this Colorado Plateau area.

I continued in my profession. Up to the present time I have held many corporate positions. Professionally, I have acted as the appraiser for the Department of Justice in the Colorado Plateau on the extent and value of the vanadium lands for the Ute Indian settlement case. I have written, of course, many technical documents. I am an active consultant—I have an active—I have been a consultant for the Atomic Energy Commission, in writing technical articles, analysis of ore deposits of the Colorado Plateau containing vanadium, uranium, some of which are still subject to secrecy classification. I have published probably a dozen various articles on the science and technology of uranium, vanadium and tungsten. [89]

(Testimony of Blair Burwell.)

At the present time I am nearing retirement, I am director of three or four companies that are engaged in the mining business. I am a director of the Federal Home Loan Bank Board, which is rather a strange assignment for a mining engineer. I am also a director of the Metal Mining Fund of the State of Colorado, which has to do with the resources of that State.

That's about the essence of it.

Q. Now, then, having given us your professional background, would you be good enough to give us a statement or a short sketch of your various corporate relationships, particularly with reference to the defendants herein involved?

A. I will start in '38. At that time I was in charge of the operations of the mills and mines of the United States Vanadium Corporation producing vanadium and uranium.

1941 and '42. '42 I became vice president of that company. I continued in that position until 1947.

I was also vice president of the Union Mines and Development Company and a director of that company. That company was a top secret company. It was organized to appraise the world resources of uranium which closely involved the Colorado Plateau.

I also had an assignment in the military intelligence at that time which concerned the same matter.

Prior to this period my background went back [90] to—my first contact with the mining of these particular ores, the production of vanadium, began

(Testimony of Blair Burwell.)

in 1919, and has continued, with a few interruptions, since that time.

At the present time my corporate interests, I am president of the Salt Lake Tungsten Company —we have mines—refineries in Salt Lake City. I am a director of that company.

I am chairman of the Board of the Minerals Engineering Company. That company organized to develop the vanadium and uranium resources in 1948.

I am director of the Climax Uranium Company which operates a large processing plant producing both vanadium and uranium in Grand Junction, Colorado.

I am also—I have these other positions, outside of the mining field, which I think I have already covered.

Q. Now, Mr. Burwell, would you be good enough to give us the nature of your experience on what has been called the Colorado Plateau, and if you would be good enough to locate that for us to start with, and then give us your experience on that?

A. Yes, I will do so and endeavor to make it as non-technical as a mining engineer can, and I will speak in this regard in the professional sense, the description. I think——

Q. In that connection, did you bring certain ores with you that are typical of the ores mined on the Colorado Plateau? A. That is true. [91]

Mr. Alioto: If your Honor please, I wonder if

(Testimony of Blair Burwell.)

we could use this table either near the witness or have him step down to this table.

The Court: What is your question again?

Mr. Alioto: My question is to develop the nature of the Colorado Plateau and his experience.

The Court: Let him tell us about it. I would like to hear it. Let him tell what it is.

The Witness: Well, if your Honor please, I would be very glad to do so in simple language, and I think there are samples of ore here and some —that contain the vanadium and uranium.

The Court: I don't care anything about the ore. I want to know—he is asking you for this territory. Now, what territory is ordinarily——

The Witness: The territory of the Colorado Plateau, your Honor and the jury, covers an area somewhat greater than any one single State. It covers approximately 160,000 square miles, and roughly the Colorado Plateau means the plateaus that are on the range of the Colorado River and some rough canyon country, and over that thousands and thousands of square miles of country there are layers of standstone rocks that went in them, there are hundreds of thousands of occurrences of vanadium and uranium-bearing ore. The extent of it now covers much of the State of New Mexico, a good deal [92] of the State of Arizona, the western part of Utah, the western part of the State of Colorado, and extends up into Wyoming.

The Colorado Plateau, your Honor, is probably the richest mining district in the United States at

(Testimony of Blair Burwell.)

this time with a value in terms of its vanadium, its uranium and its potentials for the future. So it's not a single mine. The ores that occur there contain both vanadium and uranium. They are in the same mineral. They are invisible. The economics are all the same. The processing of one or the processing of the other throughout the years the Colorado Plateau has been developed have usually controlled the development of this great resource. There is no region, no region in the world, as important to the security of the United States as the Colorado Plateau is today, and the fact that the Colorado Plateau has been developed as a result of the atomic energy program and the unselfish contributions of the Union Carbide Company and other companies in developing this area is one reason now, at the brink of atomic threat, that we can sit comfortably in the United States and say, well, it isn't here yet and maybe we will be all right.

So it is a country, it is a deposit, it is an area far beyond a chunk of rock or a bit of policy in regard to who sold which and what. However, as the ores of this country had special markets and that they had to seek their outcome through special developments, through limited special markets, not like gold or silver or copper that you can sell to the Mint, the [93] development of this great resource of the Colorado Plateau has been intermittent, alternately boom and bust. We have the great uranium boom at the present time that peo-

(Testimony of Blair Burwell.)

ple know about. Its output today is running approximately a third of a billion dollars a year. And in terms of the security of the United States there is probably no part of this whole United States as important to the average little guy, the average citizen, as the Colorado Plateau.

Now, in this whole picture you have an ore—we have an ore—there is a piece of ore—I won't belabor you with the technical description—but that ore, the mining of it, the developing of it, has either been for vanadium or for uranium or for one or the other, has been on the dumps or one or the other has been utilized and, therefore, the billion dollar prize of this great region rested on the control of the special industries that were developing the region. There probably never was, in my thirty-five years as a mining engineer, throughout the world such a rich prize that was so difficult to tell anybody about. There's probably the secrecy angle alone on this thing; the lawyers, antitrust cases, the fighting and pulling back and forth and conflict of the control for this region has utterly confused the issue, your Honor.

Now, while this case, Continental Ore, is here before you and the jury, it is only a small part of this picture. Today I can say this, as a professional engineer, as a qualified [94] person, with Q clearance of the Atomic Energy Commission, that this field today has broken all of the old restraints. The market limitations which I have complained so much about in my endeavors to operate an area,

(Testimony of Blair Burwell.)

it is now something for the American engineers, the American companies that contribute to be proud of.

We're going back to '38 in this picture and so, as I testify here with no particular interest and nonetheless the last debris of this story to be cleaned up, I must tell you in simple language the limitations and the rewards and the means that people use to either to attempt to control the region or by their patriotic effort to serve this country what has held this thing back or what has pushed it ahead.

I apologize for so much talking, your Honor, but this is not a little thing that can be discussed in narrow confines of the framework of the fingers of one case.

The Court: Well, is it an expensive proposition?

The Witness: Everything, your Honor, is expensive in this case, but there again, and in respect of vanadium, the expense of producing vanadium, as a metallurgist, a person that has to deal with costs, to pay the payroll, this is my viewpoint, that I have paid the payroll and dug the ore and drilled the rock, the cost of producing vanadium is a function of how much you've got, how cheaply—how big the deposits are, how accessible they are to roads, and what profits you have [95] between the miner who is digging the ore out of the ground and the steel boys that use it in the final analysis, and that gets into one of the funda-

(Testimony of Blair Burwell.)

mental relationships of this whole business of the Colorado Plateau.

The Court: Now, is it——

The Witness: It's not expensive.

The Court: Is it in the nature of a gamble?

The Witness: It is not in the nature of a gamble, your Honor. It has never been in the nature of a gamble. It has never been in the nature of a gamble wherever competent business, good judgment on marketing and the reasonable amount of initiative and energy was used in developing the process. Now, in my experience, vanadium in this area, in the Colorado Plateau, could be produced cheaper than anywhere in the world. At the present time this area is producing ninety some per cent of all the world's production of vanadium, and the cost of producing vanadium, if there is one profit between the man that digs it out and mills it and the man that uses it for steel, or so on, it could be produced quite cheaply.

Now, this is the conflict, your Honor, a policy that has dogged this region ever since. In between the miner and the man that uses it, the steel plant, are middle men. Now, if the middle man, which might be the ferro alloy business, happens to own the mines, that's just a happenchance; but if the middle man, who happens to be the ferro alloy business, [96] exacts a profit on top of what the miner asks to have to pay for his expenses of drilling and blasting the ore, and the two were piled one on top of the other, granted the mate-

(Testimony of Blair Burwell.)

rial becomes expensive. But throughout the development of the alloy field, and this is abundantly clear to those of us who have lived this thing as part of our business, the whole story of what cost alloys are is what volume you can make, how you can serve the end user and how much you can produce at that volume, and the answer is purely research.

Now, in the particular case of the vanadium——

The Court: Just a moment. What was your question? Your first question? I am afraid that we are getting into outer space here just a little.

Q. (By Mr. Alioto): Well, let me ask you now, Mr. Burwell, specifically, what was the economic situation on the Colorado Plateau in 1938 and 1939?

A. Thank you. I will try to answer that more closely.

Mr. Holland: What do you mean by "the economic situation"? I think you ought to specify a little more what your——

Q. (By Mr. Alioto): Just tell us as you saw it as an officer of one of these defendant companies or as an employee of one of these defendant companies, what was the situation with respect to the Colorado Plateau in '38.

A. I will answer that by inventorying the situation in[97] mid-'38 as what existed, what was being produced, what the market was and what the cost was in mid-'38. I—we—I will now speak in this tense—that I was then operating—an officer of the Carbide—operating these plants. In mid-'38

(Testimony of Blair Burwell.)

we had just finished doubling the plant—the capacity of one of our plants that took the ore from the ground and put it into fused oxide or material for the alloy boys, and that doubling of that plant was at the request of the corporation, the Vanadium Corporation of America, to do so. The Vanadium Corporation of America——

Mr. Holland: I object to this. He is trying indirectly to go into the whole picture prior to 1938.

The Witness: This is '38.

Mr. Alioto: If your Honor please, he is talking about 1938.

The Court: What is this company that you are talking about?

The Witness: The United States Vanadium Corporation. At this time we had just finished, in mid-'38, doubling our plant at Uravan to deliver vanadium oxide.

The Court: What was the cost of that plant, do you remember?

The Witness: That plant was about a million-two or three hundred thousand dollars—I don't remember exactly the figures. But we had increased that plant for the purpose [98] of supplying additional vanadium to the Vanadium Corporation of America, another defendant in this suit.

Mr. Holland: Your Honor, that question of whether they were supplying it for the Vanadium Corporation of America goes into the early history of this case and will require us to go back to 1933.

Mr. Alioto: He is speaking of 1938.

(Testimony of Blair Burwell.)

Mr. Holland: You didn't ask this question.

Mr. Alioto: We are speaking of '38.

The Court: Do you know who the purchaser of your product was in 1938?

The Witness: Yes, your Honor. Yes, your Honor. I had built the plant in '38 for the purpose of supplying the Vanadium Corporation at that time.

The Court: All right.

The Witness: It doesn't go back a time. The steel that was used to double the plant in mid-'38 was supplied by the Vanadium Corporation of America. By '38 we had started to produce approximately a million and a half pounds of vanadium oxide, but sales demands were running—were decreasing rapidly, and the supply of—the orders coming in for the vanadium in '39—I will go from '38. We had finished the plant, a plant to do a certain job for both companies. By '39 the plant was finished. But the object of the plant, in '39 we were not able to sell—to turn the vanadium completely [99] over to the Vanadium Corporation of America, we had a million some thousand pounds on hand at that particular time unsold.

The Court: Could you sell it then to anybody else?

The Witness: We tried to, your Honor, and in order to sell it, because we were facing the laying off of several—oh, four or five hundred employees and people who were working—at that time we made a study of the situation about the sales of vanadium and why we couldn't sell it. Now, our

(Testimony of Blair Burwell.)

cost at that time in producing vanadium in Uravan was approximately 40 or 45 cents a pound. Our contracts, agreements, in '38 to sell to the Vanadium Corporation of America were 80 cents a pound. We had 40 cents a pound to the good if they would take what they were supposed to take. The plant was built to take 750,000 pounds a year —those were my instructions that I got as the builder of the plant—of vanadium oxide for the Vanadium Corporation. The price that we would get in order to make ferro-vanadium and sell it through the Electro Metallurgical Company, again at a profit to the Electro Metallurgical Company, was $1.10. So between our 40 cents cost and the $1.10 that we could sell it through our—the marketing—the man that was hired to sell the vanadium for the Carbide Corporation, was the difference between 40 cents and $1.10, which was approximately 70 cents a pound, and that is almost twice as much as it costs us to get it out. Now, obviously vanadium was selling cheap—it's not a difficult thing to produce——

The Court: Just there now. You had this supply, this extra supply of vanadium on hand?

The Witness: That's right.

The Court: Could you sell that to anybody you wanted to?

The Witness: We could if we made the price attractive. It was no question that if you want to sell vanadium or you wanted to sell potatoes, that you could sell it if you made a price attrac-

(Testimony of Blair Burwell.)

tive enough to the people to buy it. You would say, "Here, I will sell you vanadium at a price that will enable you to use more of it or enable you to buy it from me," and that's competitive pricing.

The Court: Well, did you have any applications for the purchase of vanadium at that time which you refused?

The Witness: No, no, we felt that the price of vanadium was unduly high in view of its cost, your Honor, and we had a million and a half pounds of vanadium on hand which we couldn't sell but which we could sell if we would reduce the price, and therefore we held a conference about that time to see what we could do to preserve our operation.

Mr. Holland: May I ask who you mean by "we"?

Q. (By Mr. Alioto): Who held the conference?

A. Well, that conference, Mr. Holland, was—there were many conferences, and they went on for the period of six months, [101], principally between Mr. J. R. Van Fleet, the president of our company, Mr. Pat Gormley, who was I think president of Electro Metallurgical Company at that time; I believe other members of the Electro Metallurgical Company were in the various discussions, and I think Mr. Sneath was consulted in regard to this matter—and particularly Mr. Sneath. Mr. Sneath, who has a very broad experience in the ferro alloy business, represented what we call the European group of Carbide. They had access to sales in Europe for vanadium. And so we appealed to Mr. Sneath at a meeting in '39, I believe, for

(Testimony of Blair Burwell.)

help in disposing of this surplus property in Europe or some place. We couldn't—we endeavored to reduce the price to make our product more in demand in the United States, but we were denied that remedy at that time. We were operating under a split policy setup with Union Carbide. On one hand, the policies of sales in the United States were administered by the Electro Metallurgical Sales Company, with the exception of intermediate products which I personally sold or some of our other officials. [102] But so far as the vanadium oxide and ferro-vanadium went, we couldn't prevail upon the Electro Metallurgical Company to reduce the price to one quite in reasonable relationship to our cost. In going ahead with the inventory in 193——

The Court: What did you do with that inventory that you had on hand?

The Witness: We sold a million to Mr. Sneath, whom we appealed to if we couldn't do something about reducing the price in this country. We appealed to Mr. Sneath for relief, and he negotiated a sale through the foreign department, which was closely allied to the cartel group, for a million and a quarter or a million pounds of vanadium oxide, which was shipped to the New York harbor, rebarreled, sent to England and distributed into Germany.

Mr. Archer: Your Honor, I move to strike as a conclusion his statement that the foreign department was closely allied with a cartel.

(Testimony of Blair Burwell.)

The Court: What do you mean by the "foreign department"?

The Witness: The foreign department of Union Carbide and Carbon Corporation, which has, as Mr. Holland just mentioned, all these businesses in Europe, even by American companies, was dealt with through so-called cartels.

Q. (By the Court): What do you mean by a "cartel"?

A. A cartel is an agreement among producers or vendors of [103] metals or material to sell as a unit and on a fixed price and a certain allocation of the sale, and that is the way most of the alloy business in Europe has been handled and is being handled at this time. In this country, of course, the cartel has been thrown out by our anti-trust laws, but it is the customary, accepted way of doing business, and every company——

Q. In your judgment was there anything irregular in handling it that way?

A. No, your Honor, there was not. We were endeavoring to sell our vanadium. There wasn't anything irregular about selling a million and a quarter pounds through the cartel in Europe, no. If they paid us $1.30, and we got $1.40 a pound, and we paid Sir Edwin Davies a 10 cents a pound commission, it was good business and we were glad to get it, but the point at issue is this, that it was only a temporary respite and we had 90 per cent of the available vanadium for the future, accessible vanadium in a great empire, and we had men

(Testimony of Blair Burwell.)

and homes and people to work, and our problem was to set up a permanent relationship for the future and not depend upon emergency sales from time to time.

Therefore, while we were glad to have the help that Bill Sneath gave us in this particular thing, we knew that it only postponed an evil day of reckoning. I mean some day when we had to roll up our sleeves and get a market of our own in the United States we could do it and keep our people working. [104] And we were well aware at that time we were restricted in our sales in this country.

Q. (By Mr. Alioto): By whom?

Mr. Archer: I object to the question, your Honor, as calling for the conclusion of the witness.

The Court: If you know, now, of your own knowledge.

A. As the producer and executive in charge of producing materials from the mine it was part of my duties, your Honor, to know what the marketing conditions were and where it went, and under what condition, what setup, and over the period of time prior to 1938 which limits me to some extent to answer your question, I, to my satisfaction, to the best of my knowledge, knew that there was an agreement between the Vanadium Corporation of America and the United States Electro Metallurgical Company which restricted——

Mr. Holland: Just a minute.

I object to any period prior to 1938.

(Testimony of Blair Burwell.)

The Court: The objection will be sustained.

What you know you might testify.

The Witness: I am sorry.

Q. (By the Court): Were you present at the time that agreement was made?

A. Your Honor, this was not an agreement of the type where everybody got around a table and made signed articles. [105]

Q. Were you present?

A. No, I was not present. It wasn't any one particular meeting. But to my knowledge——

The Court: The objection is sustained.

Your statement will be a conclusion.

Q. (By Mr. Alioto): Did you have a meeting in 1938 with Mr. Gormley and Mr. Van Fleet at Uravan? A. Yes, we did.

Q. Who were Mr. Gormley and Mr. Van Fleet?

A. Mr. Van Fleet was the vice-president of the U. S. Vanadium Corporation at that time, and Mr. Gormley, I believe, was vice-president of the Electro Metallurgical Company.

Q. (By the Court): What would be the purpose now in producing large quantities of this vanadium if you could not sell it?

A. The reason for producing large quantities of vanadium, we produced it in anticipation of selling it, according to our market analysis, and what we believed it could be sold at the price, just like a farmer, when he grows a lot of wheat, he looks ahead next year——

Q. Why didn't you sell it at that time?

(Testimony of Blair Burwell.)

A. We couldn't sell it, your Honor, because we couldn't cut the price to a point where we could sell it in the United States. [106]

Q. (By Mr. Alioto): Why couldn't you cut the price?

A. We couldn't cut the price because the Metallurgical Company wouldn't let us.

Q. Why did they say they wouldn't let you? What reason did they assign?

Mr. Archer: I object to that, your Honor. I think we ought to have some foundation as to time and place of any conversation. Otherwise it seems to be clearly hearsay.

The Witness: Your Honor, over a period of 20 years I served the Union Carbide Company and part of my duties, of course, was the question of marketing a product of our mines. It was essential. Now, there was no one meeting, no one person. It was the ordinary course of business. There were maybe a hundred meetings that took place, when I went to New York and would discuss these things upstairs with Mr. Gormley, and we would get together in various groups and discuss our marketing problems and what we were going to do in the way of research to develop more markets and what we were going to do to sell our vanadium and new products to get it on the market at a lower price.

Q. (By the Court): What was the price now at which you were permitted to sell it?

A. The price of the ferro-vanadium at that time, to my [107] best knowledge, was running some-

(Testimony of Blair Burwell.)

where around $3.00 to $3.10 a pound, $2.90 to $3.20, depending upon grade, the pounds of vanadium content in the ferro alloy, and we believed we could sell vanadium at a price of $2.50 a pound, vanadium ferro alloy, and make the same profit on our mining venture, keep our people working and move our vanadium that we had in great abundance, because we had to produce it in abundance to make it cheaply. We could move it in great abundance at $2.50 a pound, and detailed studies of the metallurgy and the cost and the prices of the reduction, and those things, were made, and I helped make them, as I say, and I was in at the meetings when they were made.

Q. What price were you permitted to sell it at?

A. The price we were permitted to sell it at was $3.00 to $3.20 a pound, but at the same time we were selling the raw material at a price of 30 cents a pound under the open market to the Vanadium Corporation of America, and they were rather concerned at that time about the market situation. I think Mr. Holland——

Q. You made a contract to sell them at that price?

A. That is correct, and I think that is in the exhibits, and I remember the case.

Q. You thought then that was a pretty good price, didn't you?

A. No. Eighty cents a pound was a good price to us. [108]

Q. Yes.

(Testimony of Blair Burwell.)

A. If we could sell the ferro-vanadium that would result from 80 cents a pound at $2.50 a pound, the vanadium in the final product, that is what we received for it, but if we sold at 80 cents a pound to a second hand, another person, who in turn sold it for $3.10 and pocketed 30 cents a pound more profit just because he was there, why, the vanadium still was not priced at a point that would stimulate consumption or add a market.

Now, in the case of vanadium, I think it is very essential to know that the usages of vanadium have been clearly determined to be — at least I am satisfied, as a professional metallurgist—at function of price.

The great rival of vanadium is molybdenum. They did the same thing in many fields. And therefore it was a conflict between vanadium and molybdenum as to price, as to who would get the great and growing market in engineering steels.

Now, the great producer of molybdenum was the Climax Molybdenum Company, and their first operations were constricted and non-profitable because they couldn't mine enough, and they had to put their molybdenum into the ferro alloy industry and make ferro-molybdenum, and then they went into steel, and the engineering of steel consumption was all vanadium, it had a great future, because this was the dawn of all the alloy steel period. Molybdenum, however, — Climax Molybdenum revolted [109] against the payment of toll or high profits to the ferro alloy business, and in this case he went

(Testimony of Blair Burwell.)

to the Electro Metallurgical Company and started a method——

Mr. Archer: Your Honor, I object to that as calling for a conclusion.

The Witness: It is not.

Mr. Archer: I do not know what he means by paying toll or profits, but if he is talking about some kind of agreement——

The Witness: So they went directly, your Honor, to selling their molybdenum into steel with no intervening profits or costs to go into steel, and when they did that molybdenum became cheaper than vanadium. Then molybdenum began to sell 20, 30, 40 million pounds a year, and vanadium, instead of chrome vanadium steel, you saw chrome molybdenum steel coming out, not because molybdenum was better, but simply cheaper.

Q. (By the Court): How did that affect your supply of vanadium?

A. It affected it very clearly this way, your Honor: If we could reduce the price of our vanadium to $2.50 a pound, and from $3.00 to $3.50 in ferro, we could close the gap between molybdenum and vanadium and sell our vanadium in this growing field in alloys. Therefore all we needed to do to unlock the door was to open our minds and our operations, was to [110] reduce the price to make it competitive.

Q. What did you do?

A. We didn't do anything, your Honor. We couldn't do anything.

(Testimony of Blair Burwell.)

Q. You could not sell the——

A. We couldn't because there was an agreement between these two companies, to the best of my knowledge.

Mr. Holland: I object, your Honor.

The Witness: That prevented us from reducing the price of the vanadium and ferro-vanadium, and we continued to sell vanadium oxide to the Vanadium Corporation of America. Instead of cutting the price on our huge output to stimulate production in Colorado——

Q. (By the Court): They took all the vanadium that you could make, did they?

A. No, no, no. Their prices, their markets were becoming more and more restricted all the time. I made a study of this as a part of my business.

Q. Why couldn't they?

A. Their markets and uses of vanadium were being constantly lowered because the steel people were constantly using molybdenum.

Q. Just a moment. If they could buy it at 80 cents and there was a market for it at $2.50, why couldn't they take it all?

A. Because it would cost the difference between 80 cents and $2.50 to convert it from the oxide into the ferro-vanadium. It was a low profit step. In other words, if you take oxide at 80 cents a pound of oxide, and it takes two pounds of the oxide to make a pound of the metal, you have two times 80, which is $1.60, that it costs to convert it, and it costs about 50 cents a pound at that time,

(Testimony of Blair Burwell.)

or 60 cents a pound, to convert it, so $2.10,—and it costs something to sell, and it costs something for research. So at $2.50, buying it at 80 cents, there was a very meager profit, and they could not cut—so the profit at $3.10 or $3.00 was quite substantial. But at $3.00 or $3.10 they were losing the market that they could get if they went to $2.50. But if their costs of 80 cents prevented them from reducing it to $3.00, which was a reasonable price to carry on the good work that V.C.A. was doing, the Vanadium Corporation were obviously estopped from the remedy of expanding markets and expanded usages of this material, and that was the conflict of policy between the operating group, myself as a mining engineer,——

Q. Did you regard that as a difference in business judgment?

A. That is true, your Honor, that is true. It was simply a disagreement of policies within a great company. But that went on. I was a loyal Carbide official, and I had risen up [112] to a fair place in the ranks the hard way. But we would not necessarily agree. We might at one time have executives of the Carbide who would say, "Here, let's go out and cut the price of vanadium and get the market," and if you would let me open the shutter behind 1938 I will tell you about it, but I can't do it. That is the thing we started in this field to do, just this.

However, that is a misfortune, when you amputate this problem by the legs, for here you don't

(Testimony of Blair Burwell.)

get the whole story. Therefore, however, this remedy and this procedure by Carbide officials, such as Beno Shea, such as other technical men who had vision and initiative, envisioned using all this abundance for this purpose.

Q. You regard that as a difference in judgment of men in authority?

A. As to the policy.

Q. As to the policy?

A. Whether that policy was restrictive, or in restraint of trade, or whether it injured other people who were trying to get into the picture is beside the answer. However, I will continue, though.

As the 1938-1939 inventory goes along—and I will endeavor to answer your questions—1939 came on, and the first anti-trust investigation came into that region. That is when Sherman Arnold first started looking into the mineral [113] industry, and it immediately caused a great deal of self-concern in the great Carbide Company. They had 63 separate companies loose-held, and it was feared that the investigation might spread to other companies and other relationships, and quite rightly so. I hold no brief for some of this anti-trust thing that has gone on. Some of it is right and just and some of it is not. But we fought. We were concerned in 1939 and concerned in 1940.

Q. What did you do in 1939?

A. In 1939 we began to lay our plans to proceed alone again and try to cut the price of vanadium to the point that we could market independ-

(Testimony of Blair Burwell.)

ent of marketing through another company who was a competitor in the final product. We had started to lay our plans in that connection, and 1941 and 1942 came on, and then the war hit us. And now we had a situation that was entirely different develop. For the first time there was no matter or question of who was your customer. Uncle Sam needed the vanadium. V.C.A. was trying to get all the vanadium they could out of Peru. They were torpedoing ships, and we all threw together on a program, and the Carbide Company was made agents of four metal reserves for vanadium procurement and put in additional plants to meet that emergency need without regard to costs, because the chrome vanadium was needed for turbine plates and things that were absolutely essential. Molybdenum could not answer. [114]

Then there was still another great thing developed. Of course, by this time we knew, as engineers, and all of us knew, and I think even the V.C.A. knew, because they had some smart men in the field, too, that this field was a rich prize, one of the greatest mineral resources of all time for new things in energy and new things in steel. Therefore the control of the future lay in who had the first market place and the first plants to take it on, and a trickle at that time would become a river of money later on.

Q. After the war who controlled the situation?

A. Your Honor, during the war the United States Vanadium Corporation and the Union Car-

(Testimony of Blair Burwell.)

bide I think controlled the situation. We had 90 percent of the field.

Q. What control did the government exercise at that time?

A. Well, the government exercised two controls. They appointed agents or contractors to produce the vanadium, and the government, speaking in the broad sense, the Army, moved in with regard to the uranium in the ore that came out of the same material.

Q. What I am getting at is did the government fix the price?

A. The government fixed the price limit that could be paid for vanadium ore, and the government also, the metal reserves, set a price, I believe, and whoever they distributed this vanadium oxide to, it was open and above board, because [115] all the vanadium was under allocation by the government.

Q. Who determined the producers, the government or the individual?

A. I am not too—my recollection is a little bit unclear, but my recollection is that the War Production Board allocated to consumers the vanadium oxide based upon the need and the necessity in the war effort that they would establish, and after the War Production Board allocated the vanadium oxide, then the metal reserve wanted the companies that were directed to so do would deliver that material to the particular applicant.

(Testimony of Blair Burwell.)

Q. But that was all done under orders of the government?

A. That was done under the orders of the government.

So in this period between 1942 and 1945 we had no problem, really, of marketing vanadium, but, however, there was one vastly more important matter that was coming up. We also—our company, and I as an individual,—were named as a part of the operations in vanadium, because we had a background back before 1938, to be the top secret contractors for the Manhattan District to procure the uranium for the atomic bomb out of that area, and not only that—to make a world appraisal of where uranium lay throughout the world, and what activities were needed, and in case the atomic energy succeeded, and it was abundantly clear at that time the Colorado Plateau—we spent millions of dollars of government money in [116] surveying the resources of this vanadium-uranium-bearing ore. It was abundantly clear that the security of the country depended upon us having enough uranium from these uranium-bearing ores for the future to——

Q. To get to the point, during this period you mentioned from 1942 on, or 1941, what control did the defendants, the owners of the property, what control did they have over production or price, so far as the government was exercising some control?

A. Up to 1944, your Honor, the owners of the property were free to sell the ore to government

(Testimony of Blair Burwell.)

purchase stations, and they were free to sell their product on a guaranteed market. There was no matter or question of how much they had. They could always sell it.

Q. But the price was fixed by the government?

A. Your Honor, it was fixed within a range, but as vanadium was under allocation, the price was also determined by the government in allocating it.

The Court: At this time we will recess until ten o'clock tomorrow morning.

(Whereupon a recess was taken until Tuesday, June 3, 1958, at 10:00 o'clock a.m.)

June 3, 1958, 10:00 o'clock a.m.

BLAIR BURWELL

a witness on behalf of the plaintiff, having been previously duly sworn, resumed the stand and testified further as follows:

Direct Examination—(Continued)

Q. (By Mr. Alioto): Mr. Burwell, yesterday there was a good deal of conversation about the Colorado Plateau. Will you be good enough to look at that map that I am handing you and state generally for the record what it is?

A. That is a map of the Colorado Plateau.

Q. On this map, Mr. Burwell, you will notice there appear certain designations such as Uravan,

(Testimony of Blair Burwell.)

Paradox, Gateway, Slick Rock and Moab. What are those designations?

A. Those are districts or portions of the Colorado Plateau.

Mr. Alioto: We ask, if your Honor please, that this map be marked at this time simply for identification.

The Court: Very well.

(The map referred to was marked Plaintiffs' Exhibit No. 26 for identification.)

The Court: I expect that counsel have examined the map and know what it is?

Mr. Archer: I have not seen it, your Honor, but I presume it is of the Colorado Plateau. [119]

The Court: You may look at it and see if you have any objection.

Mr. Alioto: I am not offering it in evidence, your Honor, but simply at this time ask that it be marked for identification for the pictorial reference.

Q. Mr. Burwell, in connection with your association with the Union Carbide and Carbon Corporation and its subsidiaries and your service as a director and a vice-president of the United States Vanadium Corporation, did you have an opportunity to know the corporate relationships between Union Carbide, Electro Metallurgical Company, the United States Vanadium Company and others? A. Why, yes.

Q. I will ask you if you will be good enough to look at a chart which we have prepared on this

(Testimony of Blair Burwell.)

matter, and would you be good enough to state what, to your knowledge, this chart actually represents, and whether it represents the corporate setup of the Union Carbide and Carbon Corporation? You will note it shows Electro Metallurgical Company is a subsidiary of the Union Carbide; Electro Metallurgical Sales is a subsidiary of Union Carbide; Electro Met of Canada is a subsidiary, and United States Vanadium Corporation, another Electro Met company.

Does that actually represent the corporate setup of the Union Carbide Company?

A. To what time do you refer? [120]

Q. Let us say in the period of 1938.

A. It shows the corporate setup. It changed from time to time.

Q. 1939, since that is the date to which we are directing our attention at the moment.

A. I think that is pretty closely the organization.

Q. Under that we have listed certain men: Mr. W. J. Priestley; Mr. B. O'Shea; Mr. J. R. Van Fleet; Mr. Blair Burwell; Mr. F. H. Haggerson; W. H. Sneath; J. A. Rafferty; and Mr. M. D. Arrouet.

To your knowledge, were those men connected with one or more of the corporations set forth in that chart in 1938?

A. I believe that is correct. I am a little uncertain about Mr. Sneath. I believe he was a vice-president of the Metallurgical Company, but that is the only question I have.

(Testimony of Blair Burwell.)

Q. In any event, Mr. Sneath was certainly connected with one of the corporations within the Union Carbide setup?

A. He was connected with the Union Carbide and Carbon complex. I think that is right.

Mr. Alioto: We will ask that this be marked for identification at this time, if your Honor please.

(The chart referred to was thereupon marked Plaintiffs' Exhibit No. 27 for identification.)

Mr. Alioto: I have in mind, if your Honor please, certain letters will be read. This should enable the Jury to [121] identify the connection of the men involved.

Q. Mr. Burwell, simply for purposes of illustration, we had some testimony yesterday about vanadium ore. I hand you a piece of the ore. Will you be good enough to state whether that is generally the type of vanadium ore that is found on the Colorado Plateau, or one of the types?

A. That is typical of the ore of the Colorado Plateau.

Q. What is contained in this ore, Mr. Burwell?

A. Vanadium, uranium and radium.

Q. Vanadium, uranium and radium. What is the yellow streak that appears in the ore?

A. That is a mineral of vanadium and uranium called carnotite.

Q. This is the carnotite ore that some of these letters refer to?

A. That is called carnotite ore.

Q. After the ore has been treated in the mill.

(Testimony of Blair Burwell.)

I think you testified that there is a product that comes out that is called red cake. I hand you a bottle that is marked "Vanadium pentoxide."

A. This is a purified red cake which contains very little soil, but practically you would call that a red cake.

The Court: What is that?

A. This is brown oxide, vanadium oxide, and red cake is vanadium oxide, your Honor. Practically I can answer you [122] that is red cake.

Q. The Court and Jury, you know, are not experts on these metallurgical subjects. What is oxide?

A. Oxide is a combination of vanadium and oxygen. Vanadium is a metal in its elemental form, and when it is combined with oxygen, it is vanadium oxide, and this is vanadium oxide. It is not the metal. The metal is what is needed to go into steel. So between the ore, which is the oxide of vanadium, and steel, the metal, you have to take the oxygen away from it, and then it becomes a metal and becomes usable steel.

Mr. Alioto: May we ask, if your Honor please, that the ore itself be marked for identification?

The Court: Very well.

(The sample of ore referred to was thereupon marked Plaintiffs' Exhibit No. 28 for identification.)

Mr. Alioto: The witness in his previous answer referred to this as being vanadium pentoxide of a certain type. May we ask that this be marked now

(Testimony of Blair Burwell.)

for identification so the record will be clear at this point.

The Court: Very well, let it be admitted.

(The sample of vanadium pentoxide was thereupon marked Plaintiffs' Exhibit No. 29 for identification.)

Q. (By Mr. Alioto): I will show you another bottle. Is this more properly [123] red cake?

A. That is more properly red cake.

Q. A less refined material?

A. A less refined material. It is less highly refined than the other, but this is more properly red cake.

The Court: Let us define that.

The Witness: Red cake is a miner's or metallurgical term. He calls it red cake. It is vanadium oxide; just because it is red. It is a workingman's term, not a technical term.

Mr. Alioto: We ask that this bottle of red cake be marked for identification, if your Honor please.

(The bottle of red cake referred to was thereupon marked Plaintiffs' Exhibit No. 30 for identification.)

Q. (By Mr. Alioto): I will show you a bottle containing some black oxide material. Would you be good enough to identify that, sir?

A. That is fused vanadium oxide, and that is red cake that has been converted from a powder into a fused material ready for the electric furnace of the steel boys or whoever wants to use it.

(Testimony of Blair Burwell.)

Q. This is the final product of the mill, is it not, of the Western mills?

A. That is the final product of the mills out West.

Q. This is vanadium oxide of which we speak?

A. That is correct.

Q. (By The Court): Is that liquid or mineral?

A. That is solid.

Mr. Alioto: May we have that marked for identification, and I would like to hand it up to the Court.

(The black oxide sample referred to was thereupon marked Plaintiffs' Exhibit No. 31 for identification.)

The Witness: If your Honor please, you can open the top. You will see it is a crystalline hard material that has been fused and heated in the furnace.

Q. (By Mr. Alioto): That black cake, so called, or rather, the fused oxide, the last exhibit in, is that the material from which the ferro-vanadium is made? A. That is right.

Q. And what is ferro-vanadium?

A. Ferro-vanadium is a combination of iron and vanadium in varying proportions. It is an iron and vanadium metal. Iron is a metal; vanadium is a metal. Oxygen has been taken away from it.

Q. Without being too technical about the matter, Mr. Burwell, will you just state generally and concisely the methods by which the vanadium oxide is processed into ferro-vanadium?

(Testimony of Blair Burwell.)

A. There are two methods. I will tell you one. The most expensive as to plant equipment, the one which was earliest, was the method of using an electric furnace, electrodes. [125] The vanadium oxide or the vanadium ore is put into an electric furnace and the arc is started and a little carbon is added and the material is melted down and the oxide is burned away from it by the carbon under high temperatures, and it becomes ferro-vanadium under the agencies of electric heat.

I think that is the process that was used by the Vanadium Corporation until comparatively recently, and is also used by metallurgical companies to some extent in their work.

The other method, the method that is most widely used to date, is a simpler method in which the vanadium oxide which you see there is simply mixed with ground-up aluminum powder, and the aluminum powder and the ground-up vanadium are put in a pot, and ignited by a simple device, and then it all begins to burn. The aluminum metal tears the oxygen away from the vanadium oxide, and the result of that process is ferro-vanadium.

It is a very inexpensive method to do it, because your heat in the form of aluminum, instead of getting it from a electric arc, is gotten in that way, so it is quite a simple matter to do it.

Q. (By The Court): This ferro-vanadium is nothing more than uniting iron with vanadium?

A. That is correct, your Honor.

Q. (By Mr. Alioto): This method you have

(Testimony of Blair Burwell.)

called the inexpensive method; is there a shorthand trade name for it?

A. Aluminum thermic reduction, I believe is the term. [126]

Q. You say that is the lesser—so far as expense is concerned, it is the less expensive method, is that not true? A. Oh, by far.

Q. From that same ore—I hand you a very solid black substance—would you be good enough to tell us what that is?

A. That is a uranium metal, and that is part of the atomic fuel to an atomic energy plant. This is the uranium metal that came from that ore, or from any other uranium ore. This is a pure piece of uranium metal. This is the start of the atomic energy.

Mr. Alioto: We ask that this be marked, if your Honor please, as our exhibit next in order for identification.

(The sample of the uranium referred to was thereupon marked Plaintiffs' Exhibit 32 for identification.)

Mr. Alioto: I wonder if I might have those exhibits after the court has viewed them.

The Witness: Could I introduce something there? The sample of the uranium metal is beginning to get somewhat radio-active, and I suggest that that not be kept very long. Return it to me where I can put it in a brief case under protection.

Q. (By Mr. Alioto): All right, we will do that.

A. In other words, it would be rather risky to

(Testimony of Blair Burwell.)

handle that by inexperienced hands, and I wouldn't like it to get out of my possession or get into somebody else's hands. [127]

Mr. Alioto: We have not introduced it into evidence for that reason.

The Witness: In fact, I don't like it to be handled too much, if you please.

Q. (By Mr. Alioto): I have been doing it. I will hand it back to you right now, since I have been doing it.

A. All right. This builds up its radioactivity. It doesn't have it at the start. It builds up its radioactivity and begins to form plutonium and that is the way they made one of the bombs.

Q. Mr. Burwell, I have placed this material with the ore, the unrefined red cake, and then the more refined red cake, and finally the black cake, or the used vanadium oxide. During the period of time, say 1938 as the year to begin with, in that period of time was the red oxide sold commercially or was it all processed into the fused oxide?

A. The great bulk was processed into fused oxide. A very small amount was sold as red oxide.

Q. For what purpose was the red cake so-called sold?

A. As a catalyst in the manufacture of sulphuric acid and things of that sort.

Mr. Alioto: At this time, if your Honor please, the Plaintiff offers in evidence as its exhibit next in order a document about which we have already

(Testimony of Blair Burwell.)

had some pre-trial stipulations about genuineness and authenticity, dated [128] September 14, 1938, from Mr. Van Fleet to the witness, Mr. Blair Burwell. It was after the period of time we are discussing.

Mr. Archer: Your Honor, I would like to note an objection for the record that this is a letter from Mr. Van Fleet to Mr. Burwell. Mr. Van Fleet is deceased, and consequently I object on the grounds it is hearsay. It has some speculations of his and is not in the form of an admission or business record.

Mr. Holland: Is this offered only against the Union Carbide?

Mr. Alioto: At the moment it is offered only against the Union Carbide. I might just identify Mr. Van Fleet.

Q. Would you be good enough to state what position Mr. Van Fleet held in 1938?

A. Vice-President of the U. S. Vanadium Corporation.

Q. Was he also a Director of the U. S. Vanadium Corporation at the time?

A. I believe so.

Q. Would you be good enough to say whether with respect to mining he was the principal managing officer of the United States Vanadium Corporation at the time? A. That is correct.

The Court: Very well, let it be admitted. [129] Exception allowed.

(Testimony of Blair Burwell.)

(The document referred to was thereupon received in evidence and marked Plaintiffs' Exhibit 33.)

Mr. Alioto: Ladies and gentlemen, this is a letter written on September 14th, 1938, from Mr. Van Fleet, Vice-President of the United States Vanadium Company, to Mr. Blair Burwell of the United States Vanadium Corporation in Uravan, Colorado.

Q. Uravan, Colorado, was the place where you had your mill, is that correct, Mr. Burwell?

A. That is correct.

Mr. Alioto: (Reading).

"Dear Blair:

"As I discussed with you the other night on the telephone, it has become very important that we find out accurately and definitely who is producing vanadium ore and where it is going. Along with this, we want to know the quality of the ore shipped so that we can get a line on the pounds of V_2O_5. I realize that some of the quality will have to be estimated, but we ought to get a very accurate line on what the shipments have been from southeastern Utah and southwestern Colorado. We may have to do something about this production, and if information could be obtained on what they get for this ore, it would help [130] out. For instance, Harbison told me that he received 42c per pound for V_2O_5 and 60c per pound for U_3O_8."

Q. What is U_3O_8?

(Testimony of Blair Burwell.)

A. That is uranium oxide, uranium metal and oxygen combined. That is the way it was formed in the ore. [131]

"For instance, Harbison told me that he received 42 cents per pound for V_2O_5 and 60 cents per pound for U_3O_8 on a low-grade Polar Mesa ore, but if the V_2O_5 went over seven percent and the U_3O_8 over two percent he received 45 cents per pound on V_2O_5 and 80 cents per pound for U_3O_8. These are pretty high prices for us, but it may be necessary to finally do something about it.

"I have an idea that this production of ore which is going to Europe and Japan is quite a quantity of V_2O_5, and more than we think it is. I have been talking about this for some time here in New York, stating that the high prices maintained for V_2O_5 in Europe invite and stimulate this kind of competition and can eventually support a considerable vanadium business, with possibly later on a plant.

"In this respect I have had some correspondence with King"——

Who was King?

A. W. G. Haldane, my second in command.

Q. At Uravan?

A. My assistant to me, that's right.

Q. He was second in command in 1938?

A. To me.

Q. (Continuing reading): "In this respect I have [132] had some correspondence with King about the application made by Balsley and Kipe

(Testimony of Blair Burwell.)

for a freight rate on vanadium ore to Castletown, New York, where it is claimed the ore will be reduced. We cannot get any line on this plan here, and at Castletown there is no plant now available for this kind of work.

"I hope you will be able to put somebody on this and make a very careful canvass of the situation. If you could have a talk personally with Balsley you could probably find out all about it. In talking to Balsley it would be to his advantage to give you this information because I have an idea he is not making any too much money out of this business, and it might be made easier for him on some kind of a combination with us if we decided to do something about it, rather than to fight it. We could, of course, run all this business out—but it would not be good policy to hint of this or threaten.

"In this connection I would like to have a line on the Shattuck Chemical Company production. They are selling fused oxide not only in this country, but in Europe. Their oxide is low-grade containing only a little over 50 percent V_2O_5, but they are selling it for less money. I have an idea their production is only about 25 tons of fused oxide a year, but you [133] may be able to get a closer line on this. From the record you will be able to gather on the shipments to Vitro, we can get a line on their production of V_2O_5.

"I have a pretty good line on the production of vanadium in Mammoth, Arizona, as it is all sold through a friend of mine here in New York.

(Testimony of Blair Burwell.)

"Will you please see what you can do about this for me?

"Very truly yours,

"J. R. Van Fleet."

Now, Mr. Burwell, do you know what he is referring to—what is Mammoth?—"the production of vanadium in Mammoth, Arizona,"—what was that about?

A. There was a mine and a mill in Mammoth, Arizona, producing molybdenum and vanadium, and that was the mine.

Q. Who was running that mine, if you remember?

A. I am not sure. I believe it was the Mammoth St. Anthony Mining Company. That is my recollection.

Q. Did you or anybody in the United States Vanadium Corporation negotiate for taking over the production of Mammoth St. Anthony?

A. We negotiated, yes.

Q. Was——

A. The company negotiated. I ran the test work on the [134] concentrate.

Q. Did you thereafter buy that production?

A. No.

Q. Do you know what happened to that production?

A. For awhile I believe it went to Germany, and then it went to the Vitro Chemical Company during the war.

Q. Now, prior to the war period in 1942 did any

(Testimony of Blair Burwell.)

of the Mammoth production go to the United States?

A. I believe it did but I am not clear on that.

Q. Were you the man who personally negotiated for the Mammoth production?

A. I was only one man that assisted in it. I was not the man.

Q. Did those negotiations take place shortly after this letter was written, which is September 14th?

A. I don't recall just when it occurred, but I—my memory isn't clear about that. I don't recall.

Q. Now, Mr. Burwell, in September of 1938 your company wasn't short of vanadium oxide, was it?

A. Short? We were facing a shutdown because we had too much vanadium, and I had a lot of employees I was afraid I would have to lay off. We had 1,400,000 pounds at the end of '38 that we hadn't sold.

Q. If you had so much vanadium that you couldn't sell, were facing a shutdown, why did you try to buy the Arizona [135] production from Mammoth St. Anthony?

A. Keep it off the market.

Q. Keep it off what market?

A. The vanadium market.

Q. In the United States?

A. That's right.

Q. Did you at or about that same period try to buy any other independent production?

(Testimony of Blair Burwell.)

A. (No response.)

Q. How about Vitro?

A. No, I don't recall any negotiations with Vitro. I don't recall that we ever bought any vanadium from Vitro, or negotiated for it.

Q. Do you recall any negotiations with anybody else during that 1938-39 period?

A. That's 20 years ago.

Q. I know, sir.

A. I am getting a bit old.

Q. How old are you, by the way, Mr. Burwell? Do you have any objection to stating it?

A. No. I am 63, and I will be 64 this fall.

Q. Thank you, sir.

The Court: Just a kid.

Go ahead.

Mr. Alioto: I know that. [136]

A. There were other negotiations to buy output from different mills. The date—I am not sure they negotiated to buy the vanadium—I think—from the Blanding Mines. The date, again, I am not sure.

Q. (By Mr. Alioto): Was it before 1941?

A. I believe so, but I am not sure, unless I would search the records or search my files.

Q. Did you personally participate in those negotiations with the Blanding Mines?

A. Yes, I did.

Q. And were you authorized to do so by Mr. Van Fleet or anybody else?

A. Oh, certainly.

(Testimony of Blair Burwell.)

Q. Did you acquire the production of the Blanding Mine?

A. I don't recall that I did. I believe that the production from the Blanding Mines was very small and uncertain, and that the plant failed for lack of technical competency in producing it.

Q. At the time you were negotiating for the production of the Blanding Mines did you need vanadium oxide? A. No.

Q. What was the purpose of negotiating with them, then, to buy that production?

A. We were controlling the output of vanadium, keeping it [137] off the market.

Q. What market, the United States market?

A. The United States market.

Q. Was it your purpose to keep it out of the hands of independent producers of ferro-vanadium?

Mr. Holland: I suggest that Mr. Alioto be sworn if he is going to testify, your Honor.

The Court: Yes, I think your questions are rather leading and suggestive.

The objection is sustained.

Q. (By Mr. Alioto): During this period of time when you say you had so much of this—so much vanadium oxide—that you were talking about closing down the plant, did you have a meeting in Uravan with Mr. Gormely and with Mr. Van Fleet?

A. Yes, we did.

Q. Uravan, again, is the location of your mill on the Colorado Plateau; that's correct, is it not?

(Testimony of Blair Burwell.)

A. That's correct.

Q. Do you recall who else was present at that meeting, if anybody?

A. There were a number of our staff members there—Mr. Gormely, Mr. Van Fleet, I believe Mr. Haldane was there, Mr. Weston, members of our administrative staff.

Q. Now, Mr. Gormely was one of the New York executives, [138] was he not?

A. He was the operating vice-president in charge of Electro Metallurgical Company, as I recall at this time.

Q. What was said at that conference? Give us the substance of it as best——

Mr. Archer: May we have the date of it?

Q. (By Mr. Alioto): Could you fix the date any more exactly than the year 1938?

A. My recollection, it was in the fall of 1938. Mr. Gormely spent a week or ten days visiting all the western mines. We were endeavoring to avoid the snowstorms out in California. So I think it was the fall of '38.

Q. You say the snowstorms in California?

A. That's right. Up on the High Sierras.

Q. O. K. A. It snows up there sometimes.

Q. It snows down here sometimes; down South sometimes, too.

And then what happened?

A. Our problem was a severe one. We had a million four hundred and some thousand pounds of vanadium oxide in the excess of sales accumu-

(Testimony of Blair Burwell.)

lated in the warehouses at that time, were facing a shutdown. We had, of course, a large organization. We had—my problem—and I presented Mr. Gormely and [139] Mr. Van Fleet—is what to do about our continuing increasing of unsold vanadium stocks. We had just finished the year before an additional capacity to produce 750,000 pounds for the Vanadium Corporation of America. They had not taken that vanadium. I reported at that time that we either faced another shutdown of our organization, disbanding of our people, such as we did in 1932 for the same reason, unless we could do something about selling our vanadium.

Now, I made a study and presented it to Mr. Gormely, Mr. Van Fleet, of the cost of our vanadium at that time, what we could produce ferro-vanadium for, and why couldn't we do something about getting our vanadium sold on the market; that we were in danger again of losing our whole objective of a vanadium business and of vanadium operation on the Colorado Plateau. Our costs at that time—and I remember figures far better than I do names—was just a shade under 35 cents a pound of V_2O_5—mining, four dollars some cents a ton; smelting, and with amortization, I think our costs were approximately 39 cents.

If we took the vanadium, I reported, that we were producing at practically 40 cents, and converted it into ferro-vanadium, it would result in the cost of ferro-vanadium of approximately one dollar—let's see—$1.30 a pound of V. Ferro-vanadium.

(Testimony of Blair Burwell.)

I believe, at that time was selling for $2.60-$2.70, depending upon whether it was a high purity grade. [140] The difference between $1.30 and $2.60 is $1.30 a pound of V. profit to our venture. Whether it went in the pockets of Electro Metallurgical or whether it went into the pockets of United States Vanadium didn't make much difference. We could easily sell vanadium at $2.25 a pound and still make approximately 90 cents a pound of V., 45 cents a pound of oxide. That was 100 percent profit. In other words, we had the cheapest vanadium in the world. Why didn't we sell it? Why couldn't we go ahead?

Mr. Gormely reported on their efforts to sell Silvaz. Mr. Gormely had been very sympathetic about our position and our venture and our division, and he had attempted to sell vanadium in another form, which he called Silvaz, which was a cheaper method of putting vanadium into steel, and they made Silvaz and had delivered some to test customers. I had cooperated with him, Mr. Van Fleet had cooperated with Mr. Gormely, Mr. Ernie Doom, Union Carbon Research Corporation, Mr. Bransome, and the rest of the organization, in the project of selling something that wasn't ferro-vanadium, and Mr. Gormely reported as to what had happened with our Silvaz, and he said that the Vanadium Corporation had complained there had been a breach of their understanding, and that they were forced to discontinue the production of Silvaz.

Then I said why——

(Testimony of Blair Burwell.)

Q. Who was forced to discontinue the production of Silvaz? [141 Who?

A. The Electro Metallurgical Company.

Q. What else did Mr. Gormely say?

A. Mr. Gormely said——

Mr. Holland: Just a minute.

If the Court pleases,——

Q. (By Mr. Holland): Is Mr. Gormely still alive? A. No, unfortunately.

Mr. Holland: Well, we feel, your Honor, that we can't possibly cross-examine on this; that it is a dead man's statement of what someone else told him, made to Mr. Burwell. It is double-hearsay, and we object to the evidence and ask that it be stricken.

Mr. Alioto: If your Honor please, this was the top executive of the Electro Metallurgical Company at the time. Mr. Bransome and Mr. Laub of Vanadium Corporation are still living and are going to be here, so they can contradict that testimony if they want to.

Mr. Holland: He doesn't say who told Mr. Gormely that. He just says Vanadium Corporation did.

Mr. Alioto: But the president——

Q. (By The Court): Let me understand your statement again, Mr. Witness. Mr. Gormely made the statement to you? [142]

A. That's correct.

Q. And what did he say?

A. He said that they had—that the Vanadium

(Testimony of Blair Burwell.)

Corporation had objected to the sale of Silvaz as a means as against the agreement with regard to vanadium sales, and that therefore they had to discontinue the production of this Silvaz.

They said further that the Vanadium Corporation had stated it was simply a subterfuge or device to sell vanadium outside of their agreement.

Q. Who was present at that time?

A. Myself, Mr. Weston, Mr. Haldane, Mr. Van Fleet, and Mr. Gormely.

The Court: Are any of those gentlemen alive?

Mr. Alioto: Mr. Haldane and Mr. Weston are living.

Mr. Holland: Will they be here?

Mr. Alioto: Do you want to bring them here? You can bring them here.

Mr. Holland: I was just asking you.

Mr. Archer: I think Mr. Weston is dead.

The Witness: Mr. Weston died last week.

Mr. Holland: Mr. Weston died last week.

Mr. Alioto: Mr. Haldane is living, if your Honor please.

Mr. Holland: But isn't Mr. Haldane in such bad health that he couldn't come here? [143]

The Witness: I think that's correct. He is 85 years old and he can't move out of the house.

Mr. Holland: Well, there isn't a one of them that is available, then, your Honor.

The Court: The objection will be sustained. Exception allowed. There will be no possible way to cross-examine a witness on those matters—that is,

(Testimony of Blair Burwell.)

to produce evidence, if those gentlemen are all dead.

Mr. Alioto: But the problem is this, if your Honor please: This witness is not dead, and he was there, and he was their official.

The Court: The Court ruled.

Mr. Alioto: Yes, if your Honor please. We will have an exception, I take it, on that?

The Court: Exception allowed.

Mr. Alioto: Thank you.

Q. (By Mr. Alioto): What else did Mr. Gormely tell you at that time?

Mr. Archer: May we have the same objection, your Honor, to this conversation with Mr. Gormely?

Mr. Alioto: This is their own vice-president and director on the stand, if your Honor please, so far as Union Carbide is concerned.

The Court: You are assuming that there was something else said. [144]

Q. (By Mr. Alioto): What, if anything else, was said at that time, Mr. Burwell?

A. There was.

Mr. Holland: Now, if your Honor please, this——

Q. (By The Court): Have you stated the conversation, now, in substance?

A. Your Honor, no. The conversation covered days of discussion. There were problems of this plant——

Mr. Holland: Before he gives the conversation——

A. ——there were being things discussed——

(Testimony of Blair Burwell.)

Mr. Holland: We would like to object before he gives the conversation. [145]

This is a vital operation. There were many subjects discussed.

Q. (By The Court): Have you stated the substance of the conversation you had?

A. Well, this was a small portion of the conversation. They all related to the same matter.

Q. Let me ask you this question: At the time you had these conferences, when you had this extra supply of vanadium on hand, was there a market for vanadium?

A. We believe so. It was being sold.

Q. Who were the purchasers of vanadium at that time?

A. Your Honor, you mean vanadium in steel?

Q. Yes.

A. Well, nearly all the steel companies that made alloy steel—the Crucible Steel Company, First Sterling—there are probably a dozen companies or more that were producing vanadium in steel.

Q. The steel companies that were purchasing, were they your customers?

A. They were customers who buy ferro-vanadium, yes.

Q. Was there any market for that particular material other than the steel mills? A. No.

Q. Was anybody else interested in this then except your company and the steel mills so far as the sales were concerned? [146]

A. Vanadium Corporation of America. They

(Testimony of Blair Burwell.)

were also selling competitively to the steel people. In other words, there were two people selling to the steel industry, both selling the same product, both for the same purpose, and to maybe 50 customers.

Vanadium is widely used, your Honor. It is used in every variety of engineering steels, so there is hardly a steel company that does not buy vanadium in one form or another. The Vanadium Corporation of America was selling ferro-vanadium the Metallurgical Company was selling ferro-vanadium to the steel people, and there was a market. But our problem was that much of our vanadium was going to the Vanadium Corporation of America, who in turn made ferro-vanadium and they were selling ferro-vanadium in competition with Electro Metallurgical Company to the steel people. But we were in the dual position of selling our raw material to our competitors supposedly to the steel people. Therefore the situation, your Honor. That is the essence of the whole thing.

Q. Was there a demand by the steel mills for the ferro-vanadium?

A. Yes, there was a demand. Vanadium is one of the most essential, necessary elements of steel. There is always a market.

Q. Why didn't you, if the steel mills wanted it, if they were demanding it and you had a supply, why didn't you sell it? [147]

A. That is why I was asking the question, your Honor. I was the operator of the mines. I had peo-

(Testimony of Blair Burwell.)

ple to employ. I was asking, "Why don't we sell it to our customers, the steel people?" The steel people, too, were just like any other purchaser of alloy materials. They could use vanadium, needed vanadium for essential things, but they could also purchase molybdenum, too. They could buy other things —chromium—they bought other alloys. Therefore if we could present vanadium to them at a little cheaper price, we knew, and there was a report prepared, that we could use it.

Q. The substance of your conversation in this conference, then, was that these other parties did not want to reduce the price any, is that it?

A. That is correct, and the survival of our particular company, and my particular job depended upon moving this particular vanadium into the steel people.

Q. What did you finally do about it?

A. Nothing.

Q. Did you close the mine?

A. No. Soon after that, your Honor, we had the start of World War II. That saved our bacon. Pardon me for my expression, but soon after that, 1939 and 1940, the demand for vanadium especially began to come from Europe. The armaments prior to World War II started, and immediately there was a flow of vanadium. [148]

In 1939 we sold a million and a quarter pounds just for that purpose, starting a war.

Q. You did not sell what you had on hand?

(Testimony of Blair Burwell.)

A. No, we didn't until 1939, when we had to move some of it into Europe for war purposes.

Q. How soon after 1938 was it that you disposed of the supply that you had on hand?

A. It was——

Q. Approximately.

A. I think probably a year or two years.

Q. 1939 and 1940?

A. 1939 and 1940 we began to dispose of our product.

Q. And you did dispose of it?

A. That is right, we moved a lot of it down into the Americas, into the steel mills, but we moved it into Europe where the preparation for World War II was going on. It started, and the use of vanadium in war was just doubled. They used ten times as much vanadium when war came along——

Q. In 1939 and 1940, you had no trouble in disposing of your product?

A. I believe that is essentially correct, your Honor. I would have to check it, but from 1940 or 1941, there was no problem in disposing of our vanadium, no.

Q. Let me ask you this: At that time your customers were only the steel mills? [149]

A. That is right, essentially so.

Q. (By Mr. Alioto): Mr. Burwell, when you told Mr. Gormely, "Why don't we reduce the price to sell the vanadium in 1938," what did he say?

Mr. Holland: Your Honor, I object. That is the same question you already ruled upon.

(Testimony of Blair Burwell.)

The Court: It is repetition. He said that they objected. They did not want to sell it at that price.

Mr. Alioto: If your Honor please, there was a lot more to this conversation.

The Court: I know. You can have this conversation extended over weeks, but we are not going to do it. He has covered the situation now. Let us go to something else.

Mr. Alioto: I want to be deferential about this matter, if your Honor please, but may I indicate to the Court, privately or otherwise, what the rest of the conversation was? It is a matter of testimony in other proceedings and it is very important to the plaintiff.

The Court: I prefer that the witness testify. You can state whether there was anything else now, other than what you have related.

The Witness: Yes. We discussed the matter of reducing the price of vanadium——

Mr. Holland: I object, your Honor, to his stating what it was. We have an objection as to this conversation on [150] the ground we can't cross-examine on it.

Mr. Alioto: I submit, if your Honor please, it is a matter of cross-examination. There are two living witnesses to this conversation, and this is a corporate matter, and I do not think the rule with respect to dead persons applies to corporate agents.

Furthermore, they have their top executives at the time, Mr. Bransome and Mr. Laub, here in San Francisco right now.

(Testimony of Blair Burwell.)

Mr. Holland: They will be here, but he doesn't say who said it.

Q. (By the Court): Will you state who made the statement in your further testimony? Don't say "they," but mention the one who made the statement.

A. Mr. Gormely made most, made the statement with regard to Silvaz and he made the statements with regard to the MacQuaig report——

Mr. Holland: I object, your Honor, to his stating—you asked who made the statement and he is trying to get the statement into the record.

Mr. Alioto: Your Honor has in mind that these are the top executive officers of these companies.

The Court: The objection is sustained, subject to change if the circumstances justify it. I do not know how they could cross-examine the witness or how they could [151] produce other witnesses here if they are all dead.

Mr. Alioto: The witnesses are not dead who were parties to this arrangement, if there was an arrangement.

The Court: Who are the others?

Mr. Alioto: Mr. Bransome, Mr. Kett, Mr. Laub and Mr. Gibbons, the four top personnel of the Vanadium Corporation of America, and they are all living, every one of them. Mr. Burwell is here. He can be cross-examined. He was a director of this company.

The Court: Go ahead and let us not have any repetition. Overruled. Exception allowed.

(Testimony of Blair Burwell.)

Q. (By Mr. Alioto): What was said by Mr. Gormely when you said that—when you asked him about reducing the price?

Mr. Holland: That is what we object to, your Honor, and your Honor has ruled.

The Court: That is repetition.

Mr. Alioto: No, I do not believe he has completed the conversation, if your Honor please.

Q. Don't tell us what you have already said.

A. I answered that question. I think I answered that question.

Q. Was anything said about other alloys at that time?

The Court: Well, now, just a moment. Let him state what was said, but don't suggest to him the substance of [152] his answer.

A. The conversation, of course, covered a lot. I was taking in the conversation and I said, "Why didn't we go ahead and cut the price of vanadium?" I believed that the Vanadium Corporation of America could not produce vanadium at a price of $2.25 a pound and survive.

Mr. Gormely said that would put the Vanadium Corporation out of business.

I said, "All right, suppose you do put them out of business. What is the difference? We have people down here working—the survival of our business or the survival of the Vanadium Corporation business?" I said, "Where do our loyalties lie? Why don't we put the Vanadium Corporation out of business?" That is clear words.

(Testimony of Blair Burwell.)

He said, "If we put the Vanadium Corporation out of business, we would lose our control competitor in ferro-chrome."

That, your Honor, is the cold words. There is nothing wrong about that.

Q. Was anything said about the MacQuaig report at that time?

Mr. Archer: I object, your Honor.

The Court: Sustained.

Mr. Holland: That was a 1935 matter.

Mr. Alioto: I am talking about what was said in 1938. [153]

The Court: Don't put the words in the witness' mouth. Let him testify to what was said there.

Q. (By Mr. Alioto): What else was said there?

The Court: Don't lead the witness.

Q. (By Mr. Alioto): What else was said there?

A. We discussed the MacQuaig report. I discussed the MacQuaig report. I collaborated in the MacQuaig report. I wrote a portion of the MacQuaig report. I asked them about the MacQuaig report.

Mr. Holland: Your Honor, this is all matters going back to 1935.

Q. (By the Court): When was that?

A. The MacQuaig report was 1935, your Honor. It pertained to the problem we were discussing in 1938.

Q. (By Mr. Alioto): Did you discuss this report in 1938 at Uravan with Gormely and Van Fleet? A. That is correct.

(Testimony of Blair Burwell.)

Q. What was said about it?

Mr. Holland: We object, your Honor.

The Court: The objection is sustained. It has reference to something that occurred in 1935.

Mr. Alioto: Your Honor, the conversation did not occur in 1935.

The Court: I understand it didn't, but he has stated the substance of the conversation. [154]

Mr. Alioto: No, he has not, if your Honor please. He hasn't at all.

The Court: Go ahead and answer the question. Let us see what it is.

Q. (By Mr. Alioto): What was said about the MacQuaig report? A. The MacQuaig——

Mr. Holland: Your Honor, we object——

The Court: Don't state the substance of the MacQuaig report. Just state what was said there.

A. Gormely said we could not follow the recommendations of the MacQuaig report because the sales department would not allow them to do it, wouldn't allow them to cut the price of vanadium, and for the same reason he said we couldn't go ahead and sell Silvaz because we would destroy the Vanadium Corporation as a company, and their competitive value in ferro-chrome would be lost, or else some of the steel companies would pick them up, and the company then, the Vanadium Corporation of America, would be a captive company, making the other alloys, and they would lose their own business in ferro-alloys. It was too great a risk to

(Testimony of Blair Burwell.)

run to destroy the Vanadium Corporation of America.

Q. (By Mr. Alioto): Did you in September of 1938 understand what Mr. Gormely meant by their value in ferro-chrome?

Mr. Archer: I object, your Honor. [155]

The Court: Sustained.

Q. (By Mr. Alioto): In 1938 did Mr. Gormely tell you——

The Court: Now, just a minute. Don't lead the witness.

Mr. Alioto: All right, if your Honor please.

Q. State whether or not Mr. Gormely—just say yes or no, please—explained to you in 1938 in Uravan what the relations were between V.C.A. and Union Carbide on ferro-chrome?

A. Yes, he did.

Q. What did he say? Just tell us what he said and nothing else and what you said.

Mr. Archer: Your Honor, I object to this. This is clearly irrelevant. This is a vanadium case, possibly a uranium case, but certainly not a ferro-chrome case.

Mr. Alioto: I submit, if your Honor please, the witness has already testified.

The Court: Let us see now. What did this refer to?

The Witness: I am getting a bit confused now about some of this give and take.

The Court: Restate your question.

(Question read.)

(Testimony of Blair Burwell.)

A. Yes, he told me.

Q. What did he tell you?

A. He told me that the Vanadium Corporation of America had been established as a friendly competitor to sell low [156] carbon ferro-chrome in the United States, and the reason for that was to forestall anti-trust action that might come up in the future. That was on the advice of their attorneys at that time.

Mr. Alioto: We offer in evidence as our exhibit next in order a letter of September 19th, 1938, at or about the same time from Mr. Van Fleet to Mr. Gormely, Mr. Swain and Mr. Sneath.

Q. First of all, Mr. Burwell, will you be good enough to identify Mr. Swain and Mr. Sneath?

A. Mr. Swain, I believe, was an official of the Electro Metallurgical Sales Corporation, and Mr. Sneath—I have already testified to that.

Q. Was Mr. Swain an important official of that company?

A. Yes, I think he was a vice-president of the sales organization.

Mr. Alioto: We will offer this in evidence, if your Honor please.

Mr. Archer: May I have the same objection that I had to the previous exhibit?

Mr. Holland: May I see what it is?

Mr. Alioto: I thought I had left it on the desk, Mr. Holland. I am sorry.

Mr. Holland: I take it this is not offered against the Vanadium Corporation? [157]

(Testimony of Blair Burwell.)

Mr. Alioto: At the present time it is offered against Union Carbide.

Mr. Archer: This is again by Mr. Van Fleet, who is dead, and Mr. Gormely.

The Court: I don't understand.

Mr. Archer: I am objecting on the ground of hearsay. This is by Mr. Van Fleet, who is dead, and Mr. Gormely, who is dead.

Mr. Alioto: And Mr. Swain and Mr. Sneath are dead?

Mr. Archer: No, they are not.

Mr. Alioto: We will offer it.

(The document referred to was thereupon received in evidence and marked Plaintiffs' Exhibit No. 34.)

The Court: Just a moment, now. The Court has not ruled on that at all. This is a letter from whom to whom?

Mr. Alioto: Mr. Van Fleet to Mr. Gormely entitled "Competitive Vanadium Ore Production September, 1938."

The Court: How are you identifying that?

Mr. Alioto: This document we have already had pre-trial stipulations with respect to genuineness and authenticity.

Mr. Archer: No objection on the ground of authenticity.

The Court: Very well. It will be admitted. [158]

Mr. Alioto: This letter is dated September 19th, 1938 from Mr. Van Fleet to Mr. Gormely. Mr.

(Testimony of Blair Burwell.)

Swain and Mr. Sneath. It is entitled "Competitive Vanadium Ore Production," and it is from New York City.

The Court: Just a moment before you start on that. We will take a ten-minute recess.

(Recess.) [159]

Mr. Alioto: Ladies and gentlemen, at the recess I started to read the letter which is dated September 19, 1938. It is written by Mr. Van Fleet to Mr. Gormely, to Mr. Swain, to Mr. Sneath, and the subject matter title is "Competitive Vanadium Ore Production" (reading):

"Dear Mr. Gormely:

"A preliminary investigation of the vanadium ore production in southeastern Utah and southwestern Colorado has been made. The investigation is being continued and will be made complete at a later date. Preliminary figures indicate that the V_2O_5 content of the ore which has been shipped already this year up to September 1st amounts to approximately 225,100 pounds. It is thought that for the balance of this year production will be at about the same rate, and the total ore production will amount to approximately 338,000 pounds contained V_2O_5.

"The preliminary report does not give exports to Europe, but seven cars containing 34,000 pounds V_2O_5 have been shipped to Japan already this year. An approximate list of those shipments to September 1, 1938, follows:

"Japan ..... 7 cars 34,000 lbs. V_2O_5

"Vitro Mfg. Co..... 29 cars 125,500 lbs. V_2O_5

(Testimony of Blair Burwell.)

"Shattuck Chemical Co.	2 cars	5,800 lbs. V_2O_5
"North Continent Mining Co. (Produced)		40,000 lbs. V_2O_5
"Miscellaneous		20,000 lbs. V_2O_5
		"225,100 lbs. V_2O_5

"The seven cars of ore which were sent to Japan were produced from the Temple Mountain, Yellow Cat and Polar Mesa properties in southeastern Utah. A Japanese outfit started to build a mill at Temple Mountain to concentrate ore from the many dumps. They worked about 60 days, apparently ran out of money and left the property—leaving unpaid bills. The ore shipped from Yellow Cat and Polar Mesa was purchased from the operators of those properties.

"The Vitro Manufacturing Company has purchased 29 cars containing 125,500 pounds V_2O_5. This ore also contains better than two percent U3O8."——

Incidentally, Vitro is one of the ceramic manufacturers in the United States?

The Witness: That's correct. They made colors out of vanadium.

Q. (By Mr. Alioto): It is one of the large American companies, is it not?

A. (Witness nods head affirmatively.)

Mr. Alioto (continuing reading): The Vitro Manufacturing Company has purchased 29 cars containing 125,500 pounds V_2O_5. This ore also con-

(Testimony of Blair Burwell.)

tains [161] better than two percent U3O8. The Vitro Manufacturing Company process this ore for the uranium and sell the vanadium residue in some convenient form, recently reported as being fused oxide. It is not known at present where this vanadium goes. About half of these 29 cars have been produced at Polar Mesa by Harbison and Kipe. They receive high prices for this ore, namely, 45 cents per pound of V_2O_5 and 80 cents per pound of U3O8 contained in the ore. Vitro pays the freight from Utah.

"The Shattuck Chemical Company of Denver has purchased two cars of rather low-grade ore containing 5,600 pounds of V_2O_5. These two cars were specially selected uranium ore and contained higher uranium in proportion to V_2O_5 than most shipments.

"The North Continent Mining Company has a small plant in the Paradox Valley and has produced about 40,000 pounds"——

Q. (By Mr. Alioto): Now, the Paradox Valley directly adjoined Uravan, did it not?

A. Yes. But that statement isn't quite correct. The plant was not in Paradox Valley, but forty miles south of Paradox Valley.

Q. Forty miles south? [162]

A. (Witness nods head affirmatively.)

Mr. Alioto (continuing reading): "The North Continent Mining Company has a small plant in the Paradox Valley and has produced about 40,000 pounds of V_2O_5 so far this year. This production is

(Testimony of Blair Burwell.)

sent to the Shattuck Chemical Company in Denver. This production of the North Continent Mining Company purchased by Shattuck rather checks previous information that Shattuck Chemical Company produces and markets between 50,000 and 75,000 pounds of V_2O_5 yearly. They put this in the form of fused vanadium oxide with varying degrees of purity and containing from 51 to 75 percent V_2O_5.

"There has been an estimated miscellaneous production of approximately 20,000 pounds V_2O_5 from various sources.

"If the production for the rest of 1938 is in proportion, the entire 1938 production will amount to approximately 338,000 pounds contained V_2O_5 from these ore sources.

"The Mammoth Mine in Arizona has an appreciable production of vanadium. Several years ago the Molybdenum Corporation of America built a mill at Mammoth with which to process ores extracted from the New Year and Mohawk properties. They entered [163] into a contract with the owners of the Mammoth mine adjoining, to also treat ores from that mine. The treatment and recoveries were not satisfactory to Mammoth. Consequently, about January 1, 1938, Mammoth purchased the mill from the Molybdenum Corporation and took over the milling operation. Concentrates are made in this mill containing gold, lead, molybdenum and vanadium. The concentrates contain about five percent V_2O_5 and seven percent MoO_3."——

(Testimony of Blair Burwell.)

Q. (By Mr. Alioto): "M_0O_3." What is that?

A. M_0O_3, molybdic oxide.

Mr. Alioto (continuing reading): "We have looked over this operation, obtained samples of concentrates and are able to check up fairly well the production. The present capacity of the Mammoth mill would yield approximately 100,000 pounds V_2O_5 yearly, which checks closely with the 1937 production amounting to 90,000 pounds V_2O_5 purchased by Associated Metals and Minerals Company.

"The Mammoth mine is owned by Lloyd-Smith, owner of Time, Life and Fortune magazines, and it is incorporated under the name of Mammoth Saint Anthony Company. Foster Naething is the general manager of [164] this company and is a very competent mining engineer.

"If we add this 100,000 pounds V_2O_5 to the competitive ore production listed above, the total competitive production for 1938 will be approximately 438,000 pounds V_2O_5. There are many attractive occurrences of carnotite ore in the Southwest, and the production could easily be twice as much—given adequate financing and management.

"One potential producer of V_2O_5 is the Anaconda Copper Company. In Idaho they produce phosphate rock, moving it to Anaconda, Montana, for processing into fertilizer and phosphoric acid. The plant for this purpose at Anaconda is in connection with the smelter where they obtain cheap acid. This phosphate rock all contains a small amount of vanadium, and a process has been developed for recover-

(Testimony of Blair Burwell.)

ing the vanadium from the phosphoric acid solution.

"They expected to be producing vanadium this year, after installing equipment costing about $200,000, but they did not feel inclined to proceed with this expenditure this year. I imagine when business is better they will begin producing fused oxide. It is estimated that this plant will produce approximately 100,000 pounds of V_2O_5 yearly, and we have agreed to purchase the output. [165]

"The International Vanadium Corporation has taken over the lead vanadate property at Dripping Springs, Arizona. It is now being managed by one de Villiers, who was for a time employed at Rhodesian Broken Hills. The company is now well financed and the plan is to produce lead vanadate concentrates containing 17 percent V_2O_5. de Villiers claims that he can do this for 19 cents per pound of V_2O_5, producing four tons of concentrates per day. This production, if carried through, would amount to approximately 40,000 pounds V_2O_5 monthly, or 480,000 pounds yearly. They expect to be in production in about three months.

"I have recently made two visits to Dripping Springs and one of our field engineers has sampled the Dripping Springs mine. We have paid particular attention to this operation from its inception several years ago. We could never check the quality or quantity of ore claimed. The last sampling, which was very comprehensive, confirmed our previous impression, and we cannot see

(Testimony of Blair Burwell.)

how a profitable operation can be maintained at this place. The ore is entirely too low-grade—containing approximately .20 percent V_2O_5, with a small tonnage. There will be, however, some concentrates made at this place, [166] as in the past, but we anticipate that after a few months this operation will have to close.

"For the last two years we have been making a comprehensive investigation of all vanadium resources in the Southwest, which we expect to finish this season. Several attempts have been made to erect small roasters, mills and other equipment for processing these ores on a small scale. So far all of these attempts have met with failure. There is a new one going in now at Gateway and is being managed by Harry Brown, who up until about nine months ago was employed by us at Uravan as a draftsman. It is reported that Harry Brown is being backed by his father and has raised $20,000 with which to install a 20-ton plant which will be designed to produce fused oxide. He intends to make the roaster from original designs, and it is evident additional funds will be necessary. The ore will be obtained from Polar Mesa and from the deposits on the other side of the Dolores River in the vicinity of Gateway. There are a number of small high-grade deposits in this locality.

"Probably the best of the outside resources are in the southeastern Utah around Blanding and in Dry Valley. Last year, as a result of our investigations, [167] we considered that we should purchase

(Testimony of Blair Burwell.)

additional property in that locality, and $200,000 was put into the original 1938 budget to cover these purchases. Due to poor business conditions, however, it was not thought desirable to pursue recommendations for this purpose. We will renew this request in the 1939 budget."——

Then follows the last paragraph (continuing reading):

"We have already purchased two or three groups of claims which were potential producers and could be the nucleus of an operation. The intensive development during the past year has made it more imperative to continue this policy, and it now appears that we should purchase some properties and possibly install a small plant in southeastern Utah to forestall serious competition. A definite recommendation will be made on this as soon as the field work has been finished.

"Very truly yours,

"J. R. Van Fleet."

Q. (By Mr. Alioto): Now, again, Mr. Burwell, in September, 1938, when he states, with respect to Anaconda—I am sorry, I lost that reference for a moment—yes, when he states with reference to Anaconda (reading): [168]

"It is estimated that this plant will produce approximately 100,000 pounds V_2O_5 yearly, and we have agreed to purchase the output."——

did you need vanadium oxide? Did you need Anaconda's vanadium oxide in September, 1938?

(Testimony of Blair Burwell.)

A. No.

Q. Why did you buy it?

A. To keep it off the market.

Q. Which market?

A. The American market.

Q. Now, Mr. Burwell, this letter is written by Mr. Van Fleet to Mr. Gormely, Mr. Swain, and Mr. Sneath. Did Mr. Van Fleet personally acquire all of the competitive information set forth in the letter, or did you acquire it?

A. I acquired it.

Q. At whose direction?

A. Mr. Van Fleet.

Q. And for what purpose?

A. For the purpose of the report to the directors as outlined (indicating).

Q. Did Mr. Van Fleet tell you why he wanted this competitive information?

A. To make a report to the directors.

Q. Was there any policy of the United States Vanadium Corporation in that September of 1938—— [169]

Mr. Holland: He is leading the witness again.

The Court: Yes.

Mr. Holland: He isn't getting the answers he wants——

Mr. Alioto: Now, Mr. Holland, I object to the reference we weren't getting the answers we want. If we weren't getting the answers we want you wouldn't be objecting.

The Court: Now, just a minute, gentlemen.

(Testimony of Blair Burwell.)

Mr. Alioto: Thank you, Judge. I think Mr. Holland objects. I will reframe it if he does.

The Court: Reframe it.

Mr. Holland: I'm not mad.

Mr. Alioto: I'm not mad, either, Joe. I'm not mad about anything.

Q. (By Mr. Alioto): Now, Mr. Burwell, state whether or not there was in existence in September of 1938 a policy of the Vanadium Corporation with respect to competitive enterprises.

Mr. Archer: Still leading. I object.

The Court: Sustained. It is calling for a conclusion.

Q. (By Mr. Alioto): State whether or not there was, in September of 1938, a communication from any superior of yours in United States Vanadium Corporation or Union Carbide with respect to a policy [170] on competitive activities on the Colorado Plateau. A. Yes, there was.

Q. Was this an oral or a written communication to you? A. Oral.

Q. And who gave you that oral communication?

A. Van Fleet.

Q. Anybody else? A. (No response.)

Q. What was that policy as communicated to you?

Mr. Archer: Your Honor, I object to that as calling for a conclusion——

The Court: Calls for what he has in mind.

The Witness: Shall I answer it?

The Court: Go ahead.

(Testimony of Blair Burwell.)

A. Well, I was—my instructions were to acquire all the properties in the Colorado Plateau that would possibly produce vanadium in competition with the United States Vanadium Corporation.

Q. (By Mr. Alioto): To acquire them for what reason?

A. To keep them off the market as producers of vanadium.

Q. What market?

A. The American market.

Q. (By the Court): Well, now, did you regard that investment in this [171] business—. Here your company had large investments down there. Did you regard that as a good business proposition, the purchase of——

A. Yes, your Honor. Your Honor, at that time we knew we had a billion-dollar field, and we were playing the cards for a billion-dollar field. And the way you get a billion-dollar natural resource is to acquire it this way. So all may be the tooth and the fang, but this is the way mining engineers proceed —business people proceed — to acquire, control a natural resource, and this policy was directed to me by Mr. Van Fleet, and it was also directed to me previously by other corporation officials previous to 1938. This was a policy that continued from 1926 and had never been stopped.

Q. (By Mr. Alioto): Was it part——

Q. (By the Court): What was your investment, the investment of the defendant companies, in this field?

(Testimony of Blair Burwell.)

A. (Witness searching brief case.)

Q. Just approximately.

A. (After producing document): In order that my memory won't trick me, your Honor,——

Q. (By Mr. Archer): What are you reading from, Mr. Burwell?

A. Personal documents of mine. [172]

There was $1,400,000 invested at that time.

Mr. Archer: Could we identify what he is reading from there?

Mr. Alioto: Now,——

Mr. Archer: Could we have identified what he was reading from? Is it——

The Witness: I was refreshing my memory.

Now I will answer your question, Mr. Archer. There was $1,400,000, in my recollection.

Q. (By Mr. Alioto): Did you build a plant at Durango? A. I did.

Q. How much did it cost you to build that plant?

A. $103,000.

Q. How much would it have cost to build a good, adequate vanadium oxide plant on the Colorado Plateau in 1938, Mr. Burwell, producing, let us say, 15,000 pounds of V_2O_5 a year? A. A year?

Q. A month. I am sorry. 15,000 pounds a month.

A. Of course, that's a very small plant. There were a number of plants built for about $50,000 to do that job. I believe that would be the figure.

Q. Now then, with respect to the question asked you by the Court as to whether or not you consid-

(Testimony of Blair Burwell.)

ered it a good business policy to acquire these properties that might become [173] competitive if you didn't acquire them, even though you didn't need the vanadium oxide at the time, why did you consider it a good business policy?

A. Because in our appraisal of the Colorado Plateau, and our viewed anticipation of the vanadium markets and the uranium markets that we anticipated that we would need all the ore that was in this region for future markets, and that we could obtain large profits and large returns as a result of this investment, in the same way that an oil company, for instance, buys or acquires oil reserves far ahead of their immediate needs.

Q. Was it part of this policy under your directions that you would eliminate any existing competition?

Mr. Archer: I object to the question.

The Court: Sustained. Not the proper question.

Q. (By Mr. Alioto): Do you know Mr. Bransome of the Vanadium Corporation of America?

A. Very well.

Q. Have you ever had any business meetings with Mr. Bransome of the Vanadium Corporation of America? A. A number of them.

Q. A number of them? A. Yes.

Q. Specifically, did you have a meeting with Mr. Bransome [174] of the Vanadium Corporation of America in or about 1939?

A. I believe that's correct. If my memory is correct, it was just prior to the starting of the Van-

(Testimony of Blair Burwell.)

adium Corporation's plant, and I think it was '39 or '40.

Q. When you say it was just prior to the starting of the Vanadium Corporation plant, do you mean a plant that they started in '39 or '40 on the Colorado Plateau? A. At Naturita.

Q. Located at Naturita. Would you be good enough, by reference to Plaintiffs' Exhibit 26 for identification, to indicate generally where Naturita is?

A. (indicating) Approximately where my finger is pointing.

Q. Just between Uravan and Bull Canyon?

A. And Bull Canyon.

Q. Now, just before the Vanadium Corporation of America opened that mill you say you had a meeting with Mr. Bransome, is that right?

A. That is my recollection.

Q. And where, if you recall, was that meeting held? A. That was in New York.

Q. And who was at that meeting?

A. Mr. Van Fleet, myself, and Mr. Bransome.

Q. Was anybody else present on behalf of the Vanadium Corporation of America? [175]

A. I don't recall anybody else.

Q. Where was that meeting held?

A. My recollection, it was at a club in New York. I don't recall the name of the club.

Q. What was Mr. Bransome's position with the Vanadium Corporation of America at the time?

A. I believe he was president.

(Testimony of Blair Burwell.)

Q. Who fixed that meeting place, at a club in New York?

A. Mr. Bransome. It was his club.

Q. His club? Was there any reason why the meeting wasn't held in his office or your office?

A. We suggested other meeting places, but the club was selected because it was less public.

Q. Did Mr. Bransome tell you that he wanted to meet at the club because it was less public?

Mr. Holland: I object to all these leading questions.

The Court: It is not a proper question.

Mr. Holland: Let the witness testify. [176]

Q. (By Mr. Alioto): You say it was Mr. Bransome, you testified it was Mr. Bransome who fixed the club as a meeting place?

A. That is correct.

Q. In connection with the fixing of that meeting place, did he say anything to you?

The Court: What difference does it make? How is it material who selected the place?

Q. You went, did you? A. I did.

The Court: Go ahead.

Mr. Alioto: May I continue the question?

The Court: Not along that line you can't.

Mr. Alioto: If your Honor please, I would like at some appropriate point to make an offer of proof because I think it is relevant and I think the Court will agree that it is relevant as to why that place was selected.

(Testimony of Blair Burwell.)

The Court: He stated it was a private place. I think that is sufficient.

Mr. Alioto: I won't pursue it if the Court won't let me, but I submit there is an extreme relevancy to the selection of the place, as to why they selected it, why they did not transact this business in their business offices.

The Court: They can transact it down on the street corner, but it is immaterial. What difference does it [177] make? They agreed on this place. Now, go ahead.

Mr. Alioto: I will go ahead.

Q. Tell us as best you remember what discussion took place between you, Mr. Van Fleet and the President of Vanadium Corporation of America?

A. My recollection is this, that Mr. Bransome had told us that they were getting ready to rebuild and start a vanadium plant which had been inactive since 1934 in Naturita and he wished to discuss with us the problem of the ore purchasing and working together in that area because the Uravan plant was 16 miles down the river from this ideal plant, and as long as they were going to be neighbors in the area, they would like to discuss the points of mutual interest with regard to labor rates, what we paid miners, what we paid for ore, what we paid for trucking on contracts, that they would like to work with us in the matter of—these matters—and we discussed—I discussed and Mr. Van Fleet participated in the conversation—we told him —I advised him what our labor rates were, about

(Testimony of Blair Burwell.)

what we were paying for trucking per ton mile, and what we were paying for the purchase of ore at that time. We were buying a relatively minor amount of vanadium ore delivered at the plant.

Q. What did you tell him about your ore process if you remember the substance of it?

A. I told him we were paying approximately, I think, 20, [178] 21 cents per pound of vanadium content in the ore, depending upon the grade. That is, the richer the ore, we might make a little higher price, and if it was a little lower grade, we might make a little lesser price, but in general, the basing point was 21 cents a pound, and that had been established as the figure, because it was our approximate cost of producing ore at our own mines.

Our policy at that time I discussed — Mr. Van Fleet discussed—was to purchase the ore at about the same price as it would cost us to produce it from our own mines. In other words, if we could get it from somebody else and conserve our own resources at the same cost we could mine it ourselves, that was the course. Mr. Bransome wanted to know what that price was. We told him, and Mr. Bransome, to my best recollection, said, "All right, we will work with you and we will follow the general or pricing schedule that you have. That was the principal discussion at this meeting.

Q. Did you in fact after that meeting pay 21 cents for your ore?

A. We did, for a while.

(Testimony of Blair Burwell.)

Q. Do you know whether or not the Vanadium Corporation of America paid 21 cents for this ore?

A. I did.

Q. Did you have a subsequent meeting with Mr. Bransome out in Colorado? [179]

A. Yes, we had a subsequent meeting in Colorado. My best recollection——

Q. Do you recall where it was?

A. My best recollection was it was near Dove Creek.

Q. Where is Dove Creek?

A. That is south of—It is in the Colorado Plateau near the little town of——

Q. Would it be on this map or would it be off the map? A. No, it is on the map.

Q. Would you indicate approximately where Dove Creek is in relation to that Colorado Plateau?

A. It is right here (indicating).

Q. In the so-called Slick Rock mining area?

A. That is right. That is my best recollection. The ore prices——

Q. Excuse me, Mr. Burwell, before we go on to the discussion, who was present at that meeting besides you and Mr. Bransome?

A. My recollection was that Mr. Kett was there and some of our personnel.

Q. Was a Mr. Hill there?

A. I am not sure, but I believe he was. At least he was in charge of the ore buying situation and he may or may not have been there, I don't recall for sure.

(Testimony of Blair Burwell.)

Q. Would you identify the position Mr. Bransome held at [180] that time in the Vanadium Corporation of America?

A. It was the same, the President of Vanadium Corporation.

Q. What was the position Mr. F. F. Kett held in the Vanadium Corporation of America at that time?

A. I believe Mr. Kett was either Vice-President or General Manager of Mining Operations.

Q. In any event, he was the general manager of their mining operations? A. That is right.

Q. Do you recall the approximate time of this meeting?

A. No, I do not. This is a long time ago. I don't remember the details.

Q. Do you know where the meeting was?

A. To my recollection it was in the ore buying station that we were operating for Metals Reserves.

Q. The fact that there was a Metals Reserves Office involved, would that help you fix the time? It would have to be after 1940, wouldn't it?

A. I think it was 1942, somewhere around 1942.

Q. Up to that point you were buying ore from the miners at 21 cents, weren't you?

A. That is correct.

Q. What happened at that meeting? Just tell us the substance of what you said, what Mr. Kett said, what Mr. [181] Bransome said or what anybody said?

A. At this meeting or at this particular time,

(Testimony of Blair Burwell.)

and with the qualification that this was some time ago, Mr. Bransome said that the prices that we had been paying, 21 cents a pound, was only resulting—he couldn't get enough ore at 21 cents a pound to feed his mills, that he, the V.C.A., were dependent upon purchased ore while you fellows—me, Blair Burwell—have all your mines; you are not dependent upon purchasing ore. We were only purchasing about ten or fifteen per cent of our ore.

He said, "We are not going to go along with the 21 cents any longer. We are going to pay 31 cents whether you like it or not."

Q. What did you say?

A. I said, "All right, we will pay 31 cents, too."

Q. After that meeting did both of you pay 31 cents for the ore? A. We did.

Q. Do you know a man named Ralph Blitz?

A. Yes.

Q. Who was he?

A. I think he was their general superintendent or local plant manager at Naturita—the Vanadium Corporation plant after it resumed operations in 1942.

Mr. Alioto: At this time, if your Honor please, [182] we offer into evidence as our exhibit next in order, a letter dated November 2nd, 1941, written by S. Power Warren to Mr. Blair Burwell and Mr. W. G. Haldane on the interoffice correspondence stationery of the United States Vanadium Corporation.

(Testimony of Blair Burwell.)

Q. Before we make the offer formally, would you be good enough to identify Mr. S. P. Warren?

A. He was our general superintendent of the U. S. Vanadium, general superintendent at Uravan, Colorado.

Mr. Alioto: We will offer this into evidence, if your Honor please. The authenticity has already been established in pre-trial conferences.

The Court: Very well, it may be admitted.

Mr. Alioto: I will offer——

(The document referred to was thereupon received in evidence and marked Plaintiffs' Exhibit No. 35.)

[See Book of Exhibits.]

Mr. Alioto: I would like permission to read the portion of it relating to Mr. Blitz at this point. If anybody else wants to read any other portion, I have no objection.

Mr. Archer: What page is that?

Mr. Alioto: That is on page 3. This is written by Mr. Warren, the superintendent at Uravan, to Mr. Haldane, with a copy to Mr. Blair Burwell, under date of November 2nd, 1941:

"In connection with this sampling plant, [183] and with the necessity for good samples, I feel I have run onto an interesting condition which may or may not exist, but which I will call to your attention, and await your suggestions.

"As you well know, the Vanadium Corporation of America have been having a hard time getting ore. When they first came into the district, or rather,

(Testimony of Blair Burwell.)

when I first arrived here, there was plenty of evidence that they were increasing the price paid for outside ore. Blair's trip in here and his discussion with Blitz remedied that matter."

Q. Do you remember that discussion with Mr. Blitz, Mr. Burwell? A. Yes.

Q. Where did it take place?

A. I don't recall for sure; either Naturita or Uravan. I think probably Uravan.

Q. Was Mr. Blitz at the time superintendent for the Vanadium Corporation of America?

A. He was.

Q. Was anybody else present at that discussion?

A. I don't recall.

Q. Will you be good enough to state the substance of what was said?

Mr. Holland: If the Court please, Mr. Blitz, the [184] only one there present, is deceased, and we object to it.

Mr. Alioto: I submit, if your Honor please, that this is a corporate act, following a meeting with Mr. Bransome.

The Court: Who was Blitz, now?

Mr. Alioto: He was the superintendent of their mines.

Mr. Holland: Mill.

Mr. Alioto: Mill, and this relates, or is in line with the conversations the witness has attributed to Mr. Bransome and Mr. Keet, who were their top officials, and this subject matter of ore prices was discussed. It is an important act.

(Testimony of Blair Burwell.)

Mr. Holland: This is a minor official who is now deceased and has been for some years.

The Court: You are asking now for Mr. Blitz' conversation?

Mr. Alioto: The conversation which Mr. Burwell, the witness in the chair, had with Mr. Blitz, and it relates to subject matter that Mr. Bransome and Mr. Keet had previously participated in, according to this witness' testimony. I submit it is a corporate act, and the fact that Mr. Blitz is not available for testimony does not make it inadmissible.

The Court: Go ahead and answer the question. I [185] do not see its materiality.

The Witness: I asked Mr. Blitz what he was paying for ore and he told me. I don't remember exactly what it was, but it was more than 21 cents. And I asked him to check with Fred Kett as to what the prices of ore we agreed to be.

I said, "You had better check this matter with Fred and see what his ore prices are. If you will ask Fred, I would appreciate it."

And that is all I said.

Ralph said he would talk to Mr. Kett. I suppose he did. I don't know. That is the last I heard of it.

Q. (By Mr. Alioto): Did you thereafter speak either to Mr. Kett or to Mr. Blitz on the subject matter? A. No.

Q. Do you know whether thereafter the Vanadium Corporation of America paid the 21 cents for the ore? A. I think that is correct.

(Testimony of Blair Burwell.)

Q. Mr. Burwell, I want to take you to a meeting with Mr. Bransome at the end of 1947 or the beginning of 1948. Do you recall having a meeting with him? We are getting farther apart. We are getting up to 1947 or 1948. Do you recall a meeting with him on the subject of uranium as against vanadium production was brought up in either December of 1947 or January of 1948?

A. December 1947 or January of 1948? [186] Yes, yes, I had a talk.

Q. Where do you recall was that meeting held?

A. At the office of the Vanadium Corporation of America in New York.

Q. Who was present at that meeting?

A. Mr. Bransome.

Q. And yourself? A. That is right.

Q. Nobody else? A. That's right.

Q. Will you be good enough to tell us the substance of what you said and what Mr. Bransome said on the occasion of that meeting?

A. That is a big answer. I will endeavor to answer it as concisely as I can, your Honor. Many years have elapsed.

Mr. Archer: Your Honor, may I interpose just one question?

Q. Were you still employed by United States Vanadium at this time?

A. I had resigned December 11, 1947, and I was just trying to—no, I had resigned on December 11, 1947, prior to this conversation.

Mr. Archer: Then I object to the conversation.

(Testimony of Blair Burwell.)

I take it it is not offered against the United States Vanadium.

Mr. Alioto: This conversation at this point is [187] offered against the Vanadium Corporation of America as a declaration of its President, who, of course, is alive.

Q. Will you be good enough to state what was said?

The Court: Answer the question.

A. I told Mr. Bransome that we had been—I had been concerned with the problem of uranium production for the atomic period we were entering, that we had prepared—that I had prepared a proposal for the building of a central plant on the Colorado Plateau near Naturita which would have a capacity of from 500 to a thousand tons per day, and I had directed and designed with the Manhattan District's pilot plant operations conducted in 1943 a process study, assisted by Union Carbide, which was a plant design. This plant was designed to recover the uranium first using a soda ash leatching process, the same process practically that Naturita is using today, and that the vanadium that was in the ore would be held as a residue to be marketed with or in proportion with vanadium markets, and that the respect this proposal had been made was that we would not hold back the production of uranium by forcing it to come through plants that processed for vanadium first and then for uranium, which was limiting uranium production, that this plant had been designed and prepared for the ob-

(Testimony of Blair Burwell.)

jective of meeting the future needs of the Colorado Plateau.

I felt it was a very essential thing everybody who [188] had any interest in the field would cooperate with it, that I had been in touch with this problem with the Union Carbide and submitted a plan and proposal to the Union Carbide in a previous year, of Mr. Rafferty and Mr. Van Fleet and the rest of the Union Carbide group that I had worked with had approved it as a solution of the problem that was dogging us or troubling us, and the utilization of the ores of the Colorado Plateau for uranium production free from the limitations of the uranium business.

This plan I discussed with Ted Bransome. I told him that I had previously talked with Mr. March Hurst, who was President then and is President now of the Molybdenum Corporation of America, that I had recommended to the Atomic Energy Commission, that I had recommended to the Union Carbide Company that the Molybdenum Corporation of America be given the operation of this plant independent of the Vanadium Corporation of America, of the U. S. Vanadium Corporation, in order that these warring differences and disputes over vanadium market could be eliminated in the future, and that this plant had cost the government, the United States Government, approximately $400,000 for pilot planting in Grand Junction, Colorado, that it was fully developed, that it was the plan for the future, that General Groves and the Manhattan

(Testimony of Blair Burwell.)

District had approved this plan as one means of continuing without the ups and downs in the harnessing of this region in the two-way vanadium [189] market, and the finagling that was going on with those questions that you have heard in this court.

Mr. Bransome questioned me about this plan in some detail. I told them that Mr. Hurst did not feel at the moment that he wanted to get into the picture unless everybody would agree that an independent alloy-producer or operator was mutually desirable. I do not think Mr. Hurst was very warm to the proposal, anyway.

Mr. Bransome said, "Blair, supposing——"

Q. Mr. Burwell, by inadvertence you are putting your hand over your mouth.

A. I am sorry.

Q. That is all right.

A. Independent producers of ore, and there were a number at that time that had developed—"I suppose these independent producers of ore had vanadium and uranium ore and brought their ore up to this central plant that you propose. The vanadium then would be turned back to them to sell or to dispose of, isn't that correct?"

I said, "Yes, that's correct." I said, "We cannot in this particular emergency deny any person the right to get his vanadium back," that this situation had now become bigger than either the Union Carbide or the Vanadium Corporation of America in my estimation.

(Testimony of Blair Burwell.)

Then he asked this: What would happen if somebody [190] like Continental Ore or Mr. Leir shipped some ore to this central plant? Would he get the vanadium back?

I said, "Surely, he would."

So would anybody else who owned the ore. They would all have to have the same right.

Mr. Bransome said, he paced back and forth in his office, he said, "That would put Mr. Leir in the vanadium business and that is what we are trying to keep him out of."

And I looked at Ted and I turned around and walked out of the door. And that was the end of the conversation.

The plan was never put into effect.

The Court: The plan was not carried out?

A. No, because of the objection.

Q. (By Mr. Alioto): Did you have any agreement on the Colorado Plateau with Vanadium Corporation of America that you would respect each other's customers?

Mr. Holland: I object, your Honor. He is starting to lead the witness again.

The Court: I didn't get your question.

Q. (By Mr. Alioto): The question is: Did you have any agreement on the Colorado Plateau with the Vanadium Corporation of America that you would respect each other's customers with respect to all purchases?

(Testimony of Blair Burwell.)

A. I don't quite understand. Do you mean the miners?

Q. The miners, yes. [191]

A. In other words, if there was a miner selling ore to the Vanadium Corporation, that we would not attempt to buy his ore?

Q. That is what I mean. Now, just a minute. There is an objection.

Mr. Holland: I just objected to the form of the question.

The Court: He has answered.

Mr. Holland: Calling for the conclusion of the witness. He can state the agreement if there is such an agreement.

Q. (By Mr. Alioto): What was your answer?

A. There was no agreement that I had any part of.

Mr. Alioto: We will offer in evidence and ask to be marked as Plaintiffs' next in order a letter dated December 24th, 1941, from Mr. Haldane to Mr. Western, to Mr. Burwell and to Mr. Coleman.

Q. Would you be good enough to identify Mr. A. H. Coleman, Mr. Burwell?

A. He was assistant general superintendent at Uravan at one time and then became general superintendent, depending on the time of that letter.

Q. This letter is dated in 1941. What would Mr. Coleman's position have been in 1941?

A. I don't recall for sure, either general superintendent [192] or assistant general superintendent.

Mr. Alioto: We will offer this document into

(Testimony of Blair Burwell.)

evidence, if your Honor please. Its authenticity and genuineness have already been established in the pre-trial proceedings.

(The document referred to was thereupon received in evidence and marked Plaintiff's Exhibit No. 36.)

Q. (By Mr. Alioto): This document is dated December 24th, 1941, "Custom Ore, United States Vanadium Corporation, Mr. W. G. Haldane."

What was his position in 1941, Mr. Burwell? Was he your assistant then?

A. He was my assistant.

Q. This letter is directed to Mr. J. E. Weston with copies to Mr. Burwell and Mr. Coleman. It is an airmail letter from New York to Uravan, Colorado:

"Dear Joe:

"Yesterday Mr. Kett of the Vanadium Corporation of America called up protest against some attempt on our part to take a customer away.

"The story is that you went to one Lyen operating in the Cedar District, offering him $2.00 per ton above the established rates, which he in turn reported to the Vanadium Corporation of America. Knowing nothing of the circumstances surrounding the case or of Lyen, either, I advised Mr. Kett that I [193] would look into the matter. Will you kindly give me the details of this case.

"With kind regards, and with best wishes to yourself and Mrs. Weston for a Happy and Prosperous New Year, I am

(Testimony of Blair Burwell.)

"Yours very truly, Mr. W. G. Haldane."

It is now 12:00 o'clock. Does your Honor want to take the recess?

The Court: We will recess until 2:00 o'clock.

(Whereupon a recess was taken until 2:00 o'clock this date.) [194]

Tuesday, June 3, 1958—2:00 O'Clock P.M.

BLAIR BURWELL

a witness on behalf of the plaintiffs, on the stand at the time of recess, having been previously duly sworn, resumed the stand and testified further as follows:

Direct Examination—(Resumed)

Q. (By Mr. Alioto): Mr. Burwell, I direct your attention now to a meeting of the board of directors of Union Carbide sometime in 1946. Do you recall attending such a meeting? A. I do.

Q. Was this the board of directors of the top corporation itself, or one of the subsidiaries?

A. Well, it was a meeting not of the board of directors, but of the executive officials of—the vice-presidents of Union Carbide & Carbon Corporation.

Q. And do you recall the approximate date of that meeting?

A. I believe it was in the latter part of '46, possibly in November, December.

(Testimony of Blair Burwell.)

Q. It was in the post-war period, in any event?

A. That's right.

Q. Do you recall who was present at that meeting?

A. Yes, I do. Mr. Haggerson, president of the company, presiding; Mr. Priestley, president, then, of metal-chemical [195] division; Mr. Rush, I believe, who was counsel—I don't think he had an official position—he might have; Mr. Davidson, as I recall, president of Union Carbide & Carbon Company—vice-president of the company; Mr. McClure, I believe, vice-president of one of the divisions. I believe there were three or four other vice-presidents of the corporation who constituted the active management of the Union Carbide & Carbon Corporation.

Q. You were present at that meeting, were you?

A. I was present at that meeting.

Q. Where was the meeting held?

A. It was held on the 18th floor, I believe, of the 30 East 42nd Street general offices, in the meeting room off Mr. Haggerson's private office.

Q. That is the Union Carbide Building?

A. Union Carbide.

Q. In New York? A. That's correct.

Q. Will you tell us as best you remember the substance of the conversations that were had there with respect to vanadium?

A. The purpose of my appearing before this committee was to——

(Testimony of Blair Burwell.)

Mr. Archer: Could we have the conversations, your Honor?

The Court: Beg your pardon? [196]

Mr. Archer: Could we have the conversations, rather——

Mr. Alioto: That is what he was giving.

Mr. Archer: I thought he was talking about the purpose of it.

The Court: Well, it is introductory, I think.

The Witness: That's correct. You have to understand the purpose before you would understand the conversation, Mr. Archer.

A. (continuing) I was appearing before the corporation at the request of Mr. Rafferty to explain the expenditure of approximately $57,000 for the uranium-vanadium plant at Rifle, Colorado. This plant was a new plant, contained new methods of processing, and was planned as part of the future corporation policy to produce uranium and vanadium. I had spent approximately $70,000 without getting the proper or the usual budget approval, because the project had developed between formal budget meetings of these general officers. And as it was technically an overrun of budgets, I was requested by the corporation to explain the reason for—as a matter of more or less routine. This group was meeting to consider other similar budget overruns that had occurred in the fall of the year after the regular budget meeting, which I think had occurred sometime previously. There was approximately, I would imagine, four or five million dol-

(Testimony of Blair Burwell.)

lars involved in overruns [197] that were being discussed.

Q. (By Mr. Alioto): Who presided at that meeting?

A. Mr. Haggerson presided at that meeting.

Mr. Priestley requested me to explain the expenditure of seventy or eighty thousand dollars, somewhere in that amount—it was not a great amount—in that meeting for the six month period for the uranium-vanadium plant, and that I proceeded to do, to the directors, with an introduction that this was the start of the corporation uranium participation in the future after the atomic bomb had fallen, and the thing—and the completion of the Manhattan District Project. And I told the group of directors something of the objectives of the corporation as I represented it at that time in this particular meeting, towards the future importance of uranium in the atomic program, to the corporate opportunity of the Union Carbide Company.

Mr. Priestley interrupted the general statement by asking me if we were going to produce additional vanadium as a result of this uranium plant. And I explained to Mr. Priestley, and to the directors and the vice-presidents, that we would, of course, produce some additional vanadium, but the principal purpose was uranium for the future.

Mr. Priestley took me somewhat to task for spending any money for uranium at this time, when we would produce [198] vanadium that we couldn't sell.

(Testimony of Blair Burwell.)

My discussion then, in order to sell, or to convey to the directors the reasons for my expenditure of corporate funds, that the future of uranium was so important that uranium had to be obtained ahead of vanadium, and without any regard to whether you would sell vanadium or not.

And Mr. Priestley indicated that he didn't think uranium was of any immediate importance to the corporation, and how was I going to sell the vanadium that I was getting from this additional uranium plant?

And I again, I believe quite patiently, although I was becoming slightly irritated, conveyed the purpose of this uranium-vanadium plant.

Mr. Priestley asked me how much vanadium we had unsold at that time. I told him approximately a million pounds, a million and a quarter.

He said, "How are you going to sell this additional vanadium?"

"Well," I said, "I imagine that could be disposed of if we would reduce the price, research the usages of vanadium more intensely." We were already doing that. I felt that vanadium could be taken care of.

And he again said, "I don't see any justification for you producing any more vanadium at this time at a uranium plant, because if you can't sell it, what are you going to do [199] with it, how are you going to sell the vanadium?"

I therefore then told Mr. Priestley that it was not my business to sell vanadium; that if he

(Testimony of Blair Burwell.)

couldn't sell vanadium, to please say so, and that we would take over the job of selling vanadium, and I would assure him that I wouldn't sell vanadium or make a deal to the V.C.A., nor would I be indicted by the Anti-Trust Division again—I had already been indicted——

Q. (By the Court): You had already what?

A. I had been indicted. I was under criminal indictment at that time for vanadium——

Q. (By Mr. Alioto): For anti-trust violations in the vanadium industry?

A. I said I would sell this vanadium "if you can't."

Mr. Haggerson pounded the table and said the conversation was getting rather out-of-hand.

I said, "If there are any more questions in regard to the uranium, gentlemen, please let me know," and I left the meeting.

Q. I think at the time you made your statement as to what you told Mr. Priestley about his inability to sell, you had your hand over your mouth, and I am not sure that I quite understood it. What was it, precisely, you told Mr. Priestley when you started out saying "If you can't sell it, turn it [200] over to the United States Vanadium Corporation"?

A. "We will sell it and we won't have to make a deal to the V.C.A. to do it, either."

Q. Now, in the same year did you have a conversation with Mr. Priestley, that same Mr. Priestley, and Mr. Rafferty, in about October of 1946, in New York, with respect to some competitive bid-

(Testimony of Blair Burwell.)

ding to the United States Government on vanadium?

A. I believe that's correct. And—I am not sure—it ran ahead of this meeting of the directors, or whether it was behind it.

Q. Whether it was ahead of this meeting or behind it, do you recall that it was sometime in 1946?

A. I believe that it was in October of '46. I am not sure.

Q. Do you recall where that meeting was?

A. Mr. Rafferty's office.

Q. Do you recall who was present?

A. In New York. Mr. Priestley, Mr. Rafferty, myself.

Q. Who was Mr. Rafferty?

A. Mr. Rafferty was senior vice-president of Union Carbide and Carbon Corporation, chairman of the board of United States Vanadium Corporation.

Q. And who was Mr. Priestley at that time?

A. Mr. Priestley at that time I believe was vice-president of the corporation in charge of the metal division. [201]

Q. Is that vice-president of Union Carbide & Carbon, the top corporation?

A. That's correct.

Q. Did he have an office, also, in the Electro Metallurgical, in United States Vanadium?

A. I believe he did. Yes — now, I am not quite too sure about whether he had an office in United States Vanadium Corporation. He shortly after-

(Testimony of Blair Burwell.)

wards, or at that time, was president of United States Vanadium Corporation.

Q. What was the substance of the discussion you had at that meeting in New York?

A. Well,——

Q. I'm sorry. At that time you were the vice-president of the United States Vanadium Corporation, were you not? A. That's correct.

Q. And you were a director of the United States Vanadium Corporation? A. That's correct.

Q. And you were head of the mining functions for that company, were you not?

A. Well, I was vice-president in charge of all the operations, which included mining.

Q. All right. Tell us the substance of that conversation, Mr. Burwell.

A. I have a memorandum which will refresh my memory—— [202]

Q. Well, can you remember the conversation without the memorandum? Do you recall the subject matter of it? What did it relate to?

A. Well, I will have to give this—the conversation—if we chop it there, it's hard for me to answer it. I will have to tell you why this conversation occurred—I mean how—what—how I happened to be in Mr. Rafferty's office.

Q. Well, how were you in the office?

A. Because it doesn't make sense to answer questions——

Q. I understand.

A. It would be just futile to do it.

(Testimony of Blair Burwell.)

Q. Why were you in that office?

A. Sometime before that we had a million and a half, two million pounds of vanadium—a few weeks before that the government, the treasury procurement in Washington, announced their intention to buy vanadium for the stock pile at that time, and announced that they would accept bids for that vanadium oxide from various—from the vanadium companies, whoever would have the vanadium.

I discussed this matter with Mr. Priestley and, I think, Mr. Remmers, and Mr. Rafferty, Mr. Van Fleet—the matter of policy meeting. And I was directed to make a bid to the treasury procurement in Washington for this vanadium at 98 cents a pound.

At that time Mr. Priestley said he thought we ought to [203] go after the business and authorized me—we all agreed that we would bid 98 cents per pound. We had information, or some supposition, or some knowledge, that probably the Vanadium Corporation of America would bid $1.00.

So I made the bid for 98 cents a pound, and had a call from Washington that a larger amount of vanadium would be included if we would reduce the price slightly; that we were the low bidder; and would pay the freight—and I think that meant something like 97 cents a pound. It would involve from 98 cents, a cent a pound for the reduction for freight—that we could have the entire stock pile order, as we were low bidder on that basis.

(Testimony of Blair Burwell.)

So I conveyed this to Mr. Priestley, Mr. Remmers, Mr. Rafferty, chairman of the board, Mr. Van Fleet.

Shortly after that Mr. Priestley had called me and told me not to agree to the 97 cents a pound; that he thought it would be better to give the Vanadium Corporation part of the business, and that I should withdraw my offer or go to Washington and tell them that we ought to consider the other vanadium producers in this business.

And I promptly rang Mr. Rafferty up on the P-A-X phone, the little intercommunicating phone between my office, 1426, and the 18th floor, Mr. Rafferty's, and told Mr. Rafferty that I had this call from Bill Priestley, and that he wanted to back out on the sale and tell the government that [204] we would reconsider—like to have the Vanadium Corporation included in this business.

Mr. Rafferty said, "Come on up. Bill is in front of me right now. I'm just getting into this thing."

And now is the meeting that you asked me.

Q. All right. What happened at that meeting, then?

A. I sat on the corner over at one side. Mr. Priestley was sitting in the front, on the little chair on the carpet. Mr. Rafferty was sitting in his —Mr. Rafferty is the senior vice-president, atop Mr. Priestley in prestige. Mr. Rafferty was talking to Mr. Priestley when I came in, and I sat over—sat down in the corner on a chair.

Mr. Priestley—or Mr. Rafferty was questioning

(Testimony of Blair Burwell.)

Mr. Priestley about this thing, and he says, "Bill, what do you mean about—what do you mean about giving V.C.A. a part of this business? I thought we had agreed that we would try to move our excess stocks and get it out of here."

"Well," Mr. Priestley said, "I believe that I considered—I think Blair ought to go down to Washington and get ahold of"—I think his name was Chaffee—"and tell him that V.C.A. ought to be considered in this position."

Mr. Rafferty said, "Bill, Blair over here is under indictment for this monopoly case. Of course, you know that." He said, "That would be very unwise, for us to go down to Washington, or for Mr. Burwell to go down there and openly ask [205] for the Vanadium Corporation to be included in their business. What is your idea, Bill? What's going on about this business?"

Mr. Priestley said, "Well, I have just heard that the—had word from Mr. Swain"—I knew Mr. Swain, vice-president of the Electro Metallurgical Company. Mr. Priestley said, "Mr. Swain has just told me a short time ago that he had prevailed upon the Vanadium Corporation of America to increase the price of ferro-chrome silicon to the point that it would not be used as a substitute for low-carbon ferro-chrome, and I don't want to antagonize the V.C.A. at this time, and therefore, I would like to have part of this business so we can continue along."

Mr. Rafferty said, "Mr. Priestley, do I under-

(Testimony of Blair Burwell.)

stand that you are still conniving on this business with the V.C.A.? I thought we were all over that kind of monkey-business." And he took Mr. Priestley pretty much at heart. I was sitting there, now, to be frank, enjoying it just a little bit.

End of the conversation.

Q. Now, at that time Mr. Priestley was, in fact, was he not, the head man in the vanadium business for Union Carbide?

A. Well, I would judge he would be. We had somewhat a mixed command.

Q. (By the Court): What was the result of your deliberations?

A. The result of the deliberations, your Honor, I went [206] back to my office on the 14th floor, and Mr. Rush called me up and asked me about the conversation.

Q. (By Mr. Alioto): Who was Mr. Rush?

A. He was attorney for Union Carbide & Carbon Corporation.

He said he had just heard it from Mr. Rafferty, and he said Mr. Haggerson had already got hold of the story. "Hold tight, will you?"

Q. (By the Court): Said what?

A. "Don't do anything."

And a short time afterwards one of the—I had a message; I think it came from Mr. Rafferty, or Mr. Priestley, or from somebody upstairs, that told me to go ahead with Mr. Chaffee on our 97-cent bid. And so we went ahead and sold vanadium on the 97-cent bid.

(Testimony of Blair Burwell.)

Q. (By Mr. Alioto): Was this as late as October, 1946?

A. That is my best recollection.

Q. I want to direct your attention now, Mr. Burwell, to a plant that you folks had down in Durango. I think you have already testified that you built that plant for something more than a hundred thousand dollars during the war.

A. That's right.

Q. Was that built with government funds or with private funds? [207]

A. Government funds.

Q. And you actually supervised the building of that plant, did you? A. I did.

Q. And you ran it? A. I did.

Q. Now then, that plant was actually a government plant during the time you were operating it, wasn't it?

A. It was a government plant operating by United States Vanadium Corporation as agents for the Metal Reserve Company.

Q. Did you folks have some kind of an option to buy that plant at the termination of the war?

A. We had an option to purchase the plant for its cost less depreciation, so much a year, which amounted to approximately $25,000 a year.

Q. You bought this plant for $25,000?

A. No; the depreciation amounted to $25,000 a year.

Q. Well, you bought the whole plant?

(Testimony of Blair Burwell.)

A. At any time the government declared it surplus, at $25,000 a year, approximately,——

Q. Do you recall what it was you paid for this plant?

A. I would say about $75,000.

Q. How many tons were you—what was the capacity of that plant with respect to the tonnage of ore? [208]

A. A hundred tons a day.

Q. A hundred tons a day.

Now, before you exercised that option to buy that plant from the government had you heard from any source that some competitors were trying to get ahold of it? A. Yes. [208-A]

Q. (By Mr. Alioto): Who were the competitors who were trying to get hold of it?

A. Mr. Sitton and Mr. Brinker. Mr. Sitton was a mine owner, a miner, at Delta Creek, Colorado.

Q. And who was Mr. Brinker?

A. Mr. Brinker was a metallurgical engineer living in Durango, Colorado. I think he is at present employed by the Vanadium Corporation of America.

Mr. Holland: Good man.

Q. (By Mr. Alioto): At that time did they propose to set up an independent operation in Durango?

A. I don't know what they proposed.

Mr. Archer: I object.

Mr. Alioto: Let me put this document in itself and we will get to it directly. We will offer as

(Testimony of Blair Burwell.)

Plaintiffs' Exhibit next in evidence a telegram from Mr. Blair Burwell to Mr. W. G. Haldane on February 29th. The telegram does not have the date but I think the connecting correspondence will fix it in 1944.

Q. Is that your recollection as to the year in which you sent the telegram?

A. I think that is about right.

Mr. Archer: Yes, it is February 29th.

Mr. Alioto: 1944. Mr. Archer, would you have any objection as to my writing "1944" on February 29th? [209]

Mr. Archer: I would appreciate it.

Mr. Holland: This is offered against whom?

Mr. Alioto: It is offered against Union Carbide and its subsidiaries. We will offer this in evidence, if your Honor please.

(The telegram referred to was thereupon received in evidence and marked Plaintiffs' Exhibit No. 37.)

Mr. Alioto: I would like to read this to the Jury, if I may. It is very short. It is a telegram from Mr. Blair Burwell to Mr. W. G. Haldane:

"Brock advises that Brinker with Sitton and other promoters are reported to be planning to take the Durango plant in case we do not recapture it stop. This is rumor only but suggest you advise Mr. Rafferty regards. Blair Burwell."

Q. Who is Brock, Mr. Burwell?

(Testimony of Blair Burwell.)

A. He was our general superintendent at the plant at Durango at that time.

Mr. Alioto: We offer as Plaintiffs' Exhibit next in order a memorandum from Mr. Haldane to Mr. Rafferty, with a copy to Mr. Blair Burwell, dated March 6th, 1944. The authenticity and genuineness has already been worked out in pre-trial stipulations, if your Honor please.

(The document referred to was thereupon received in evidence and marked Plaintiffs' Exhibit No. 38.) [210]

[See Book of Exhibits.]

Mr. Alioto: This exhibit, ladies and gentlemen, dated March 6, 1944, starts out by saying, "Dear Mr. Rafferty: I am attaching hereto a memorandum summarizing the situation at Durango."

And the attached memorandum under the title is "Durango Plant." The following language appears: "United States Vanadium Corporation considers it highly essential that it acquire this plant for the following reasons:

"1. To maintain its position in the vanadium industry of the Southwest. Repeated reports have reached this company of plans of outsiders to acquire the plant in the event United States Vanadium Corporation decides not to exercise its option. The injection of additional operators in this field would undoubtedly seriously disturb conditions in the vanadium industry in the post-war period."

This is 1944.

Q. Mr. Burwell, who were the so-called outsiders

(Testimony of Blair Burwell.)

who were trying to acquire this plant? Was it Mr. Sitton?

The Court: Now, just let him answer. Do you know?

A. That was contained in the report, the telegram in which I said Sitton, Brinker and other people. They were the people I was mentioning. Mr. Haidane to my knowledge referred to those people. [211]

Q. (By Mr. Alioto): At this time in 1944 there was no shortage of vanadium, was there?

A. No, no.

Q. In other words, this is March 6, 1944.

A. No, we had large stocks of vanadium.

Q. As a matter of fact, the Metal Reserves program with respect to some of the independent mills like Nisely and Wilson had already been terminated? A. That is right.

Q. By this date? A. That is right.

Q. Isn't it a fact, Mr. Burwell, that the purpose of this Durango acquisition was to keep out competition?

The Court: Now, just a moment.

The Witness: I think the purpose——

The Court: Just a minute. Your question is leading and suggestive. Let him state the facts.

Q. (By Mr. Alioto): State the facts with respect to the purpose for the acquisition of the Durango plant.

The Court: Why did you want to buy the plant? Did you think it was a good proposition?

(Testimony of Blair Burwell.)

The Witness: We wanted the plant to keep control of the production of vanadium.

The Court: That was your business, wasn't it?

The Witness: That was our business. [212]

The Court: Did you see anything wrong about that or improper?

The Witness: Not at that time, as a loyal Carbide employee, no. That was part of the job, to fortify the corporation's position.

Q. (By Mr. Alioto): When you answered the judge's question and said you bought the plant in order to control the production, what did you mean by that?

A. Well, to keep other production from coming in from other people.

Q. You mean competitors?

A. Well, the vanadium on the market in competition with us.

Mr. Alioto: We offer next, if your Honor please, on this subject matter a letter of the Vanadium Corporation of America dated March 21, 1944.

Mr. Holland: Just a minute. Can I see it for a minute, counsel?

Mr. Alioto: Yes.

Q. (By the Court): This plant that you speak about buying from the Government, did you say the Government put up the money to build it and you operated it?

A. That is correct.

Q. When you bought it you merely continued your operation?

(Testimony of Blair Burwell.)

A. Correct. We operated for the Government account, [213] delivered the vanadium to the Government, when we were operating during that period. When we were operating for our own account we used the vanadium for our own purposes.

Q. (By Mr. Alioto): Were you operating both the Uravan and the Durango plants after this acquisition?

A. Refresh my memory on the dates there, please.

Q. March of 1944.

Mr. Archer: I believe it was October, 1944, Mr. Burwell, when you bought the plant.

A. I believe the Uravan plant was shut down in mid-1944, but we were operating a plant at Rifle at that time, and the plant of Uravan was operated until mid-1944, when we shut down because we had over stocks of vanadium.

Q. In other words, you shut down your Uravan plant before you bought the Durango plant?

A. If these dates are correct.

Q. Mr. Archer has given us the date of October, 1944, the actual purchase of the plant.

A. I think that is correct.

Mr. Alioto: We will offer in evidence a letter from Mr. D. W. Viles, Assistant Manager, Western Division, Naturita, Colorado, to Mr. F. F. Kett, General Manager, Mining Division of the Vanadium Corporation of America, under date of March 21, 1944.

(Testimony of Blair Burwell.)

Mr. Archer: I take it this is against only Vanadium? [214]

Mr. Alioto: That is correct, at this moment.

(The document referred to was thereupon received in evidence and marked Plaintiff's Exhibit 39.)

[See Book of Exhibits.]

Mr. Alioto: This letter by the Assistant Manager of the Western Division of the Vanadium Corporation of America reads as follows:

"In regard to the purchase of the Dry Valley property belonging to the Moly Corporation, there is considerable low-grade ore in the Frisco and Water Falls group and this property, in my mind, if it could be purchased, say for $2,000, would be a good investment if only to prevent some outsider getting ideas in regard to the Monticello plant."

Q. Mr. Burwell, I want to direct your attention to some meetings with respect to the sales and the business of the Union Carbide and/or its subsidiaries. Do you recall a meeting at the Vitro Corporation plant at Pittsburgh in 1940?

A. Yes.

Q. Do you recall who was present at that meeting?

A. I believe Mr. Fleck of Vitro Corporation, Mr.—the Secretary. I don't recall his name myself.

Q. Was his name Strodd?

A. Mr. Strodd. [215]

Q. What was your position with the United

(Testimony of Blair Burwell.)

States Vanadium Corporation at the time? That was in 1940.

A. Well, I was assistant to Mr. Van Fleet in charge of operations under Mr. Van Fleet.

Q. What was the conversation that took place?

Mr. Archer: I object to that, your Honor. This was with Vitro. It certainly has nothing to do with these defendants.

Mr. Alioto: Your employee was there. This man was the assistant to the General Manager in charge of mining. I do not see how he can say it has nothing to do with him.

The Court: Go ahead and answer the question. Exception allowed. I do not see its materiality.

Mr. Alioto: I think it will be established in a moment, if your Honor please.

Mr. Holland: Mr. Alioto, may I ask you against whom this is offered?

Mr. Alioto: As of the moment it is being offered only against Union Carbide and not against your client, Mr. Holland.

The Witness: Will you repeat the question, please?

Q. (By Mr. Alioto): What was the substance of the conversation between you, Mr. Vitro and Mr. Strodd in 1940?

A. I discussed with Mr. Strodd and Mr. Fleck the sale of the remaining uranium. We had the uranium concentrates [216] available at that time produced at Uravan.

(Testimony of Blair Burwell.)

Q. What were they using the uranium concentrates for?

A. They were using it for pigments.

Q. Pigments?

A. And also the concentrates contained vanadium in about equal quantity, and I discussed the disposal of the vanadium along with the uranium. I was negotiating a sale to the Vitro Chemical Company for approximately 100,000 pounds of uranium, which we later carried through. Mr. Stodd went over and discussed with me at that time also their needs for vanadium. They had use for vanadium and had use for vanadium and had been using fused oxide for the purposes of their plant. They were having trouble with it because it was not quite adaptable to conversion into colors. I asked him where they got it. He said they were getting it from VAC. I asked him why they were using fused oxide, the hard stuff there, instead of red cake. He said they had never used the red cake. I suggested that we would sell him the red cake instead of the Vanadium Corporation of America fused oxide.

He was interested in using red cake. We discussed the technology involved with Mr. Strodd, and beyond that we concluded or set up the basis for the sale of uranium, and that was the end of the conversation.

Q. Now, then, did you subsequently report this conversation to anybody in the Union Carbide organization?

(Testimony of Blair Burwell.)

A. Yes, my recollection—I was in Pittsburgh, and as a [217] matter of courtesy I called on the local vice president or whoever is in charge of sales for Metallurgical Company. I think that was Mr. Dutot.

Q. How do you spell that name?

A. D-u-t-o-t, I believe.

Q. And he was connected with the Electro Metallurgical Company?

A. He was connected with Electro Metallurgical Sales.

Q. Did they have an office in Pittsburgh?

A. They had an office in Pittsburgh, and I recall talking to he and I think his representative. Now, there may have been others there. I think there were. I think there was a Mr. Ford also there at that time. I mentioned the sale of vanadium coming up to red cake and took Dutot—called him "Baldy"—a little bit to task for not selling vanadium, that we had a great stock of vanadium, a surplus of it out West and our mines were shutting down. And Mr. Dutot said, "VC is selling their vanadium." The VAC had apparently been selling their vanadium, and we were not calling on the VAC customers.

Q. How did it mappen that you were in Pittsburgh trying to sell this red cake to the Vitro Company?

A. I was not trying to sell the red cake to the Vitro Company. I was trying to sell uranium, and as a side issue and incidental toward the sale of

(Testimony of Blair Burwell.)

uranium I came in contact with the fact that they had a market for vanadium, and that [218] the vanadium market amounted to a hundred thousand pounds of vanadium oxide, and it was an important sale. So I went after the sale, although I was no salesman on uranium—in fact, this was something on the side. I am not a salesman and I really did not call I think for the purpose of selling vanadium. I probably was a little bit semi-critical of the Carbide's organization for sleeping at the switch when there was a market for a hundred thousand pounds of vanadium going begging there, and we picked up the market.

Q. (By the Court): You said you made the deal?

A. I made the deal in this way, that I reported it then to New York and let the Electro Metallurgical Sales make the contracts for the vanadium oxide, but I was the person who brought them together and engineered the sale and then later——

Q. The sale was made in accordance with your suggestion? A. That is correct.

Q. (By Mr. Alioto): That is the red cake sale?

A. That is right, and we sold them 100,000 pounds of uranium approximately for around a dollar a pound, and we sold them the vanadium and red cake for some price similar to that, set the prices on those.

Q. Do you recall a meeting with Mr. Dutot in July, 1946, with respect to sales matters?

A. Yes.

(Testimony of Blair Burwell.)

Q. Where was that meeting held? [219]

A. That was also in Pittsburgh.

Q. Who was present on that occasion?

A. Mr. R. D. Sullivan, Mr. Dutot, and I believe again Mr. Ford.

Q. Do you recall what was said?

A. Again I will have to tell you the background of what we said, because what I said would not make sense.

Q. All right.

A. If I could have that leeway in answering the question.

The Court: Go ahead.

A. I had gone to Pittsburgh with Mr. Sullivan and the General Superintendent of our mines for two purposes: One was to obtain certain types of drill steel from the Crucible Steel Company for our mining operations out west, and Mr. Sullivan also was directing or assisting in the sales of a new division that U. S. Vanadium had organized called the Metal-Chemical Division of U. S. Vanadium. Mr. Sullivan was sales manager as well as superintendent out west, and I think one of those exhibits has the little indication of the Metal-Chemical Division of U. S. Vanadium.

Anyway, we went down there for two purposes. One was to see about selling tungsten concentrates which we were making out in our mines in California, and at the moment had too much of—couldn't sell—and also making an arrangement to get some special drill steel made by Crucible Steel

(Testimony of Blair Burwell.)

for [220] purposes in our mines, as the drill steel had a hole inside, a hollow drill steel that enabled us to get more air down into the drill, into the bit. And so we asked Mr. Dutot if he could arrange a meeting with the president of the Crucible Steel Company. We had a carload or better ordered of steel, an important thing, and I said we should get some reciprocity on this thing. "We have vanadium, we have tungsten and other things. Let us work this so if we buy a carload of drill steel, let's see what we can do about getting some of this vanadium business and some of the uranium business." He arranged a meeting with the president of the Crucible Steel, and I don't recall his name at the moment.

Mr. Archer: Is that Mr. Felsinger?

The Witness: Mr. Archer, I don't remember that name either. I don't think it was.

Mr. Archer: It wasn't Mr. Cauldin, was it?

Mr. Alioto: I think Mr. Archer would no longer object on the basis of leading questions.

The Witness: I have a terrible memory for names and I am always apologetic about it.

Q. (By Mr. Alioto): In other words, it was the president of the Crucible Steel Company?

A. That is right. So we met with the Crucible Company, but Mr. Dutot, before we left, he said, "Don't mention vanadium to the Crucible Steel. Don't bring it up. Don't try to sell [221] them vanadium as a favor to me."

I said, "Why?"

(Testimony of Blair Burwell.)

"Well, they have been getting their vanadium from the Vanadium Corporation of America, ferro-vanadium, and we were told not to approach the customers of Vanadium Corporation of America, and so you will embarrass me if you talk to them about it."

Well, we did talk to the Crucible Steel about taking and smelting tungsten and placed an order shortly afterwards for a carload of steel, and I went to New York and reported the matter to Mr. Rafferty. [222]

Q. Did Mr. Dutot tell you who gave you those instructions?

A. He said he got his instructions from Mr. Remmers and Mr. Priestley—those were his superiors in the company.

Q. And this was in October of—in July of 1946, was it? A. I think that's right.

Q. Now, Mr. Burwell, there is one more meeting out in Colorado I would like to cover before we go into the matter of joint operations of the two companies on the Colorado Plateau after 1938.

Now, with respect to that meeting do you recall——.

The Court: Before you get to that——

Mr. Alioto: Yes, sir.

Q. (By The Court): Now, was there anything unusual in having these arrangements with people that you were on good terms with? In other words, did you think it was all right to try to take a customer away from another company?

(Testimony of Blair Burwell.)

A. Why, I think so, if we had unsold vanadium and men that we were having to lay off. The essence of our whole enterprise depended upon going to a customer, or actively sell our wares. It was considered good business in the end corporation. With expanded sales, the usual way they did was competitive calls and maybe lower price. They might—the usual manner to go into business. Why, I don't think it's the usual thing not to do it. [223]

Q. Suppose this other company tried to make a sale to one of your good customers that had been with you a long time, what would have been your attitude?

A. That would be perfectly all right. If they could give better prices, better services, we would have to whip up our ability to produce, ability to sell, or get out of the business.

The Court: All right, go ahead.

Q. (By Mr. Alioto): Now then, with respect to any additional meeting at Colorado, do you know a Mr. Sneath?

A. Yes, I knew Mr. Sneath.

Q. Who was he?

A. Mr. Sneath was an officer, I think vice-president, of Electro Metallurgical Company. I think he was president of Electro Metallurgical Company at Canada. He had other positions in Europe. I don't know exactly. The subsidiary in Norway—Electric Furnace Plant at Sauda, Norway. He was an officer of the company.

(Testimony of Blair Burwell.)

Q. Did you have a meeting with Mr. Sneath out in Colorado in 1939? A. Yes.

Q. Where was that meeting held?

A. At the Uravan plant.

Q. Was anybody there besides Mr. Sneath and yourself? [224]

A. Mr. Van Fleet, I believe—I am sure Mr. Weston was there; Mr.—a number of our—I'm not sure that Mr. Haldane was there—I don't think so. We had other employees—superintendents and other active people.

Q. (By The Court): These were all officers of the subsidiary companies of the Vanadium Company? A. That's right.

Q. (By Mr. Alioto): Would you be good enough to tell us the substance of those conversations, Mr. Burwell?

Mr. Holland: Is this being offered against Carbide?

Mr. Alioto: It is offered against the Carbide on the usual——

A. In order to answer you intelligently and tell what this meeting was, what led up to it——

The Court: Go ahead.

A. (Continuing) ——Mr. Van Fleet and Mr. Sneath came out together by arrangement with Mr. Gormely the year before and went all over the mine area, the mining properties, with the purposes of seeing what our producing capacity was in vanadium, and discussing the problem of disposing of excess vanadium which we had on hand

(Testimony of Blair Burwell.)

in 1939. Again our situation had continued to become somewhat troublesome and desperate. We had [225] an increasing stock of vanadium, even over the '38 danger point.

Q. (By the Court): What year was this?

A. '39, the year after the Gormely meeting.

Mr. Gormely suggested that we get Sneath out there to see what he could do to sell this vanadium to Europe to some of his friends across the water, and if we could get Mr. Sneath down to Uravan and show him the layout and—he had never been out there,—but that he might understand what this thing was all about, in so far as our mines went, and our needs for selling our output.

And so Mr. Sneath and Mr. Van Fleet arrived at Uravan for the purpose—that purpose, and the conversation occurred with that background.

I participated in this discussion and reviewed the fact again that we were producing vanadium quite cheaply, something like 35, 38 cents a pound; we were the lowest cost producers in the world; and we had a great volume of vanadium there, and we had to look ahead to the future to get markets. But meantime we had 1,700,000 or more pounds of unsold vanadium which we were unable to sell because the Vanadium Corporation of America had started in to import vanadium from their new concentrating plant in Peru and had more or less broken off the volume of purchases of oxide from us, and we [226] were needing to move that amount or vanadium or we would have to shut down.

(Testimony of Blair Burwell.)

Mr. Sneath promised to do what he could abroad to sell this excess vanadium, and he said he had friends and associates over there, particularly Sir Edmund Davies, who was working closely with him in England. Sir Edmund Davies was, Mr. Sneath told me—and I also knew it before from conversations with his group—was associated with Union Carbide in England and in the Rhodesian Chrome Company and the African Manganese Company, and he was a part or an associate in the so-called cartel group that handled the affairs of Carbide in chrome, manganese, and alloys, in Europe.

And as the conversation proceeded beyond the question of the immediate disposal of vanadium, which Mr. Sneath promised to look into as soon as he got back to New York, and we continued the discussion in the evening, and we had very fine steaks and some very good Scotch whiskey, and a very—everybody got discussing the background of the European situation and the marketing of vanadium and chromium, ferro alloys, and the history of the ferro-chrome business, and Mr. Sneath reviewed at that time, at the time following World War I, when the Germans were actively engaged in the dumping of surplus materials in other countries at lower prices, in excess of what they could absorb in Germany, and it was about that time that the Anti-Dumping Act was brought up against the Germans, [227] and Sneath mentioned that the Germans had started dumping the low-carbon ferro-chrome, which was the main money-maker

(Testimony of Blair Burwell.)

of Electro Metallurgical Company—that paid 75 percent of the profits of Electro Metallurgical Company—had begun to dump low-carbon ferro-chrome into the United States and in England, and they, therefore, set up a counter-activity against the German cartel, which was principally directed by—headed by the senior Gruenfeld, which—who I am sure many people in this courtroom know—he was the head of the German alloy trust. And due to the manipulation of the cartel, there was only one or two alloy plants running in all England after World War I. The chromium was being imported out of Germany back into England.

The Saude works was created, I was told, to supply England and the United States and the European market with the cheap hydroelectric power of Norway. Therefore, to protect their own business on low-carbon ferro-chrome, Mr. Sneath told how they cut the price and dumped the chromium, ferro-chromium, into Germany, tit-for-tat, for everything that the Germans had started dumping in their territory. That is the conventional, usual way these cartels work, until they get together.

Q. Now you are relating a statement by Mr. Sneath?

A. The conversation, yes, sir.

Q. That is Mr. Sneath's statement as what occurred over there in Europe? [228]

A. That's right.

Q. (By Mr. Alioto): This statement was made in 1939? A. At this time,——

(Testimony of Blair Burwell.)

Q. Yes.

A. ——when I was taking part in the conversation. I was with Mr. Van Fleet, exploring the whole arrangements that they made.

The further information that I got from Mr. Sneath, as I best recall it, was that the Germans agreed not to dump any more low-carbon ferro-chrome or alloys into certain trade areas if Electric Furnace Company of Norway would not dump any in their back yard, in their trade areas. And so it was closed out.

It developed soon after that that without any competition, without anybody producing low-carbon ferro-chrome in the United States but Electro Metallurgical Company, that the danger of investigation became known to Mr. Sneath, they felt they had done a job, the attorneys advised them to go ahead and set up some competition in the United States of low-carbon ferro-chrome, or encourage somebody to become a competitor of low-carbon ferro-chrome in the United States; otherwise they would be subject to anti-trust action that was then beginning. I think that's the first time——

Mr. Holland: May it please the Court, your Honor [229] felt, I think, that this case should not go back of 1938. If we go into this old picture on the basis that somebody told it to Mr. Burwell in 1939, we will have to go into all of it, too.

Mr. Alioto: Now, if your Honor please, he is about to come to a portion of the conversation that relates to Mr. Holland's client and the vanadium

(Testimony of Blair Burwell.)

business, and I think he should be permitted to finish a conversation that was given in '39.

Mr. Holland: It's all pre-'38 stuff.

Mr. Alioto: Relating to '39, relating to the existence of a situation in '39.

Mr. Holland: No; it is just nice conversation they had after a couple of Scotches.

Mr. Alioto: I think if he has an objection——

Q. (By the Court): Go ahead and finish your story. Limit it to the conversation.

Q. (By Mr. Alioto): Now, the conversation with respect to the Vanadium Corporation——

A. I was told that the Vanadium Corporation was set up there by agreement or understanding, not written, to sell low-carbon ferro-chrome in the United States, although they didn't produce it, the Vanadium Corporation. Mr. Reece was [230] the one that had carried on those discussions, Mr. Holland.

Q. (By Mr. Holland): He is dead, isn't he?

A. He is, unfortunately. Too many people are dead in this picture.

Anyway, Mr. Sneath said that the company was set up, Vanadium Corporation, to sell low-carbon ferro-chrome, and in turn for which Carbide, they had agreed—he had agreed that the Union Carbide-Electro Metallurgical Company would not compete in the vanadium field in the alloys, would let the Vanadium Corporation of America set the price and be the leaders in the market.

Mr. Holland: I ask that all be stricken, your

(Testimony of Blair Burwell.)

Honor. That all goes to pre-'38 material. Or that the defendants be permitted to introduce anything pre-'38 that they wish.

Mr. Alioto: I think, if your Honor please, it is a statement as to an agreement with respect to prices.

Q. (*By the Court*): You say it is '39?

A. Yes.

Mr. Alioto: Yes.

Q. (By the Court): When was this agreement that you are talking about?

A. I don't know. Mr. Sneath didn't tell me the date of [231] the agreement. But it was prior to '38.

The Court: Well, the jury will disregard this statement.

Mr. Alioto: Well, let me ask——

Q. (By Mr. Alioto): In that connection, Mr. Burwell, whether Mr. Sneath at that time said or implied that the agreement was still in effect as of '39?

Mr. Holland: He is leading the witness again.

The Court: That is leading and suggestive. You can ask him what occurred there. Don't tell him what occurred, but ask him what occurred.

Mr. Alioto: Well, I have in mind, if your Honor please, that I think the sense of the conversation up to this point is precisely an explanation of why they couldn't move these big stocks.

Q. (By Mr. Alioto): Mr. Burwell, am I mistaken—did you testify in this record that there

(Testimony of Blair Burwell.)

was a discussion of why—how to move the stocks you had on hand?

A. Why, sure. That was the purpose of the meeting. This was incidental to the problem of the meeting. And we couldn't move our stock because Mr. Sneath—the agreement—Mr. Van Fleet stated that the agreement was in force, to the best of his knowledge; we couldn't sell vanadium, according to this [232] agreement.

Mr. Alioto: Excuse me.

I was requesting, in view of that, your Honor, that the Court reconsider its direction to the jury to disregard the conversation. Here was an explanation of why they couldn't sell their stocks in 1939.

The Court: Yes, I understand that.

Mr. Holland: And further, your Honor, Mr. Burwell——

The Court: Mr.—one of these officers, he said.—

The Witness: Van Fleet.

The Court: ——they had an understanding or agreement prior to '38.

The Witness: Well, Mr. Gormely had told me that the year before; in a private meeting in '38 Mr. Gormely said that the agreement was still in force; they couldn't get around it.

Mr. Archer: I didn't get that. May I have it read back?

Mr. Holland: Further, your Honor, Mr. Burwell testified yesterday that they did sell this stock, and that Mr. Sneath did sell it to Europe.

(Testimony of Blair Burwell.)

Mr. Alioto: Sold it abroad; not in the United States. [233]

Mr. Holland: At a higher price than he could have gotten in the United States.

The Court: We will have to go back to '38 for any agreements or understandings.

Mr. Alioto: Well, I want to be sure the record is—I am not sure about the state of the record.

The Court: You can have an exception to the ruling of the Court. Let's get along with this case.

Mr. Alioto: Well, I want to exhaust this conversation, if your Honor please, because I think the record is now muddied on this conversation, and I think I owe it to my clients to try to get it cleared up. I would like to proceed in that fashion. I don't want to be frightened into not protecting this record for these people, if your Honor please.

The Court: We are taking a lot of time on this —a lot of time.

Mr. Alioto: If it relates to the existence of an agreement in 1939, we consider it rather important. I would appreciate——

The Court: Go ahead with your question and we will see whether or not it is material.

Mr. Alioto: Thank you.

Q. (By Mr. Alioto): Now, with respect to this conversation, has it been your testimony that the purpose of this meeting was to figure [234] out ways and means of selling the excess stock you had?

Mr. Holland: I object to the question——

(Testimony of Blair Burwell.)

A. Yes, I testified to that——

The Court: That is in the record; he has testified to that.

Q. (By Mr. Alioto): Did you at that time say anything about lowering the price in order to sell the stock? A. Yes,——

Mr. Holland: I object——

A. ——we did.

Mr. Holland: ——to the leading questioning.

The Court: Objection sustained.

Q. (By Mr. Alioto): State whether or not you made any suggestion about disposing of the stock.

The Court: Now, just a moment.

Just let him state what happened there. Don't tell him what happened, but let him state what happened.

Q. (By Mr. Alioto): State, if you will, what was said by you, or by Mr. Sneath, or by Mr. Van Fleet.

The Court: I think you have already gone over this before.

A. We — I recommended — the purpose of the visit was to [235] discuss the disposal of the stocks, and we recommended the sale of this vanadium by reducing the price and selling it in the United States.

Mr. Sneath said he would try to sell it in Europe: he didn't think he wanted to—could sell it in the United States.

Q. (By the Court): He said what?

A. He didn't think we should sell it in the

(Testimony of Blair Burwell.)

United States by lowering the price, and he thought he should—could sell it in Europe.

Q. Mr. Sneath? A. Mr. Sneath.

Q. Well, now, he is not—he was not connected with any of these companies?

Mr. Alioto: Yes, if your Honor please—a very important official of Union Carbide.

The Court: Let the witness testify.

A. Mr. Sneath is connected with these companies, yes; he was vice-president of Electro Metallurgical Company.

Q. (By the Court): Oh. That is one of the subsidiary companies?

A. That's right. And he is living.

Mr. Alioto: And I understand he is going to be here, if your Honor please. [236]

Q. (By Mr. Alioto): Now, did Mr. Sneath on that occasion tell you why it shouldn't be sold in the United States at a lower price?

A. I can't say that he told me why—just why. We all knew why. But I don't remember that he sat there and said, "Blair, we can't sell it because we have an agreement with these boys not to——"

Mr. Holland: Object to having him testify to what he didn't say.

The Court: Let's not say what he didn't say.

Q. (By Mr. Alioto): The point we are getting at, Mr. Burwell, in what relation, or in connection with what subject, did he tell you the story about ferro-chrome and vanadium?

A. Well, in connection—ferro-chrome, the story,

(Testimony of Blair Burwell.)

what he explained to us, because of this ferro-chrome agreement they could not cut the prices in the United States and undersell the Vanadium Corporation. That was the point of the whole story about ferro-chrome. That was the background for the reason why——

Mr. Holland: This is an indirect way of going—

Mr. Alioto: Just a minute.

I think there should be an objection and not a statement.

Mr. Holland: I object and ask that the answer be [237] stricken on the ground that it is an indirect way of attempting to go prior to '38, which your Honor has ruled is not to be a part of this case.

Mr. Alioto: Submit, if your Honor please, that the witness has said that the reason they couldn't cut the price in '39——

The Court: The jury will be instructed—is instructed to disregard now these matters that occurred prior to '38.

Exception is allowed.

Q. (By Mr. Alioto): Now I want to ask you, Mr. Burwell, about certain joint operations between the Vanadian Corporation of America and—

Does your Honor want to take a recess at this time? I note that the Court is looking at a watch.

The Court: Take a recess for about ten minutes.

(Short recess.) [238]

Q. (By Mr. Alioto): Mr. Burwell, I believe

(Testimony of Blair Burwell.)

you testified that there was no shortage of vanadium in November, 1953, and you fix it by the fact that you started to suspend some of the metal reserves contracts in or about that time?

A. That is correct.

Mr. Holland: Mr. Alioto, wasn't that 1940——

Mr. Alioto: No, 1943.

Q. I will ask you, isn't it a fact that at the end of 1943 you gave notice to Nisley and Wilson, the independent oxide producer at Gateway, that the Government contract would not be renewed?

A. That is correct.

Q. Do you have any recollection as to whether or not there was a shortage of vanadium oxide at the end of 1943?

A. There was no shortage. There was a surplus of vanadium at that time.

Mr. Alioto: We offer at this time, if the Court please, a request of the Continental Ore Company to the Vanadium Corporation of America for oxide in November, 1943.

Mr. Holland: No objection.

(The document referred to was thereupon received in evidence and marked Plaintiff's Exhibit 40.)

Mr. Alioto: We offer as plaintiff's exhibit next in evidence an answer of the Vanadium Corporation of America to the Continental Ore Company with respect to this matter. [239]

(Testimony of Blair Burwell.)

(Whereupon, document referred to above was received in evidence and marked Plaintiff's Exhibit 41.)

Mr. Archer: What is the date of that?

Mr. Alioto: The date of the response is November 19, 1943.

Mr. Holland: May it please the Court, may I ask this: These letters we have admitted the authenticity of. The first letter to which I made no objection was one from Mr. Leir, is that correct?

Mr. Alioto: That is correct, and the second one is one from Mr. Gustaf Laub, the Assistant Vice-President of the Vanadium Corporation of America.

Mr. Holland: Are you planning to call Mr. Leir to testify?

Mr. Alioto: Oh, yes, Leir will testify in this case. Are you planning to call Mr. Laub?

Mr. Holland: Yes, we are calling Mr. Laub.

Mr. Alioto: We offer as plaintiff's exhibit next in order a request in November, 1943, or rather two requests made to the metallurgical company by the Continental Ore Company and the answer of the Electro Metallurgical Sales Corporation to the Continental Ore Company.

Mr. Archer: May I have the dates on these?

Mr. Alioto: Yes. The date of the first letter of the Continental Ore Company is November 17, 1943; the second [240] date is November 30, 1943;

(Testimony of Blair Burwell.)

the letter of Electro Metallurgical Company to Continental Ore Company is November 30, 1943.

(The documents referred to were thereupon received in evidence and marked Plaintiff's Exhibit 42.)

Mr. Alioto: I respectfully request permission of the Court to read these letters to the jury. They are requests and answers.

The first letter is from the Continental Ore Company, dated November 16, 1943, to the Vanadium Corporation of America, Attention: Mr. Laub:

"Gentlemen:

"Re: Vanadium Pentoxide

"We would appreciate your offering us: 10,000 to 15,000 pounds of V_2O_5 contained in vanadic oxide, per month.

"We would be ready to sign a contract with you for a fixed length of time.

"Very truly yours,

"Continental Ore Company,

"Henry J. Leir."

The answer of Vanadium Corporation dated November 19, 1943:

"Gentlemen:

"Re: Vanadium Pentoxide

"In response to your inquiry of November 16th requesting quotation on 10,000 to 15,000 pounds, monthly, of V_2O_5 contained in vanadic oxide, we regret very much that due to our present commitments we are not in the position to take on this additional tonnage at the present time.

(Testimony of Blair Burwell.)

"Perhaps if you are still interested at a later date and our situation changes, we will be glad to look into the matter further at that time.

"Regretting our inability to be of service to you at this time, we are,

"Very truly yours,

"Gustaf Laub, Assistant Vice-President."

Mr. Holland: May it please the Court—pardon me, Mr. Alioto, I do not mean to interrupt you—but may I ask Mr. Alioto if Mr. Leir will testify in respect to these matters? I want to be able to cross-examine Mr. Leir on those matters.

Mr. Alioto: If your Honor please, when Mr. Leir testifies, counsel can cross-examine about these matters if he wants to, but I submit that is independent evidence standing on its own feet. Mr. Leir will be here to testify.

Now, the next exchange of correspondence is between the Continental Ore Company and the Electro Metallurgical Sales Corporation.

On November 17, 1943, a letter from Mr. Leir to the Electro Metallurgical Sales Corporation:

"Gentlemen:

"We would appreciate your offering us: 10,000 to 15,000 pounds of V_2O_5 contained in fused vanadic oxide, per month.

"We would be ready to sign a contract with you for a fixed length of time.

"Very truly yours,

"Continental Ore Company,

"Henry J. Leir."

(Testimony of Blair Burwell.)

On November 30th, Mr. Leir writes again and says, this being to Electro Metallurgical Sales Corporation:

"We have not as yet received a reply from you to our letter of November 17th, of which we enclose a copy since the original may have gone astray.

"We would very much appreciate hearing from you regarding this matter at your earliest convenience.

"Very truly yours,

"Continental Ore Company,

"Henry J. Leir."

The answer of the Metallurgical Sales Corporation of the Union Carbide is dated November 30, 1943.

Mr. Archer: This obviously is not an answer. I think there is a later letter there.

Mr. Alioto: The answer states as follows:

"Referring to your inquiry for fused vanadic oxide, [243] in view of the many uncertainties prevailing at the present time, we do not feel that we should undertake supplying your regular requirements for this material.

"Very truly yours,

"Electro Metallurgical Sales Corporation,

"By W. E. Remmers."

Q. (By Mr. Alioto): Did it ever come to your attention, Mr. Burwell, that the Continental Ore Company had made a contract with the Apex Smelting Company for the manufacture of ferrovanadium?

(Testimony of Blair Burwell.)

A. Oh, I had heard about it, Mr. Alioto, not in any official and definite way.

Mr. Alioto: We offer at this time, if your Honor please, a series of inter-office correspondence, inside the Vanadium Corporation of America.

Mr. Archer: These are not offered against Union Carbide?

Mr. Alioto: That is correct.

Mr. Archer: Or in connection with Mr. Burwell's testimony.

Mr. Alioto: I did not understand that last remark.

Mr. Archer: You asked Mr. Burwell about this, and he said he had not heard about it.

Mr. Alioto: I simply asked him whether he had heard about it. That is all I asked. He said he had. Now, [244] then, we offer as against Vanadium Corporation of America a series of inter-office memoranda dated February 20, 1942, March 14, 1942 and April 14, 1942, relating to the Apex Smelting Company, as one exhibit.

Mr. Holland: To which we object, your Honor, on the ground no proper foundation has been laid for it. These letters concern the relations between Mr. Leir and the Apex Smelting Company, of which Mr. Burwell knows nothing. There has been no foundation laid to show that they are in any way relevant. It will depend upon the testimony of Mr. Leir in respect to his Apex contract to prove their relevancy. They are introduced out of order.

(Testimony of Blair Burwell.)

Mr. Alioto: If your Honor please, these stand on their own, and they show negotiations between this organization and Apex Smelting Company with respect to the Continental contract. I did not understand. Is the objection on the basis of irrelevancy or immateriality?

Mr. Holland: No proper foundation laid as yet.

The Court: Between the defendant company and Apex, you say; does it refer to Mr. Leir?

Mr. Alioto: Oh, yes. That is all it refers to. This is not between this company and Apex. This is between one member of this defendant company and another member of the same company. As long as the objection has been made that no foundation has been laid, I take it, Mr. Holland, in accordance with our prior understanding that there is a stipulation of genuineness and authenticity.

Mr. Holland: Oh, yes, they are authentic.

Mr. Alioto: And that Mr. Bransome, one of the men to whom it is directed, was President of the Vanadium Corporation of America.

Mr. Holland: Yes.

Mr. Alioto: Mr. Laub was the Vice-President.

Mr. Holland: That is correct.

Mr. Alioto: And Mr. Christianson was a Vice-President.

Mr. Holland: There has been no foundation laid as to the relevancy of any correspondence relating to Apex Smelting Company. The proper order would be to put in Mr. Leir's contracts with the Apex Company.

(Testimony of Blair Burwell.)

The Court: Perhaps it would be better for you to offer it in order.

Mr. Alioto: If your Honor please, there is testimony by this witness, while he is still on the stand, about a conversation with Mr. Bransome in which Mr. Bransome is purported to have said they were trying to keep the Continental Ore Company out of the vanadium business. I submit it is in the proper development of this witness' testimony, and I think we ought to give some manner in the order of proof, that this testimony of attempting to get at Apex ought to go in at this [246] point. I would like your Honor to read that. I think its relevancy is immediate apparent.

Mr. Boiland: It is 1942 correspondence, and the testimony relating to Mr. Bransome was in 1948 or December, 1947. It has nothing to do with the conversation in 1947.

The Court: The objection is sustained, temporarily. You can introduce it at the proper time.

Q. (By Mr. Alioto): Mr. Burwell, did your company have any joint mining operations on the Colorado Plateau with the Vanadium Corporation of America in 1938 or thereafter?

A. Not joint mining operations, no. We mined properties of the Vanadium Corporation of America. We had no joint mining operation.

Q. You say you mined on properties that belonged to Vanadium Corporation of America?

A. Yes, we mined on properties belonging to the Vanadium Corporation of America.

(Testimony of Blair Burwell.)

Q. Do you have some name in the industry or in the trade by which you used the properties of Vanadium Corporation of America, that your company mined in 1938 or 1939?

A. Yes, they are designated by the names of the mining claims. There was a Maggie C., the Coloradian, the Donald L. mining claims in the Paradox mining region.

Q. Would you be good enough to designate on this map, if you would, Mr. Burwell, the approximate location of those [247] mining claims of the Vanadium Corporation of America which your organization mined?

A. They would be approximately under the "a" of "Uravan," right here in the Colorado Plateau.

Q. Would all the claims mentioned by you in this record be located where you have indicated?

A. At the start, all claims. Later on, they expanded into Dry Valley.

Q. Did you personally participate in the negotiations—first of all, were there negotiations with the Vanadium Corporation of America about mining these claims? A. Oh, yes.

Q. And mining on their claims?

A. That is right. I participated in the discussions, arrangements of the mining, the terms of the mining and all the details.

Q. With whom did you negotiate or who was the party representing the Vanadium Corporation of America in these discussions?

A. My recollection is Mr. Kett.

(Testimony of Blair Burwell.)

Q. What was Mr. Kett's position?

A. He was General Manager for the Vanadium Corporation of America.

Q. Could you fix the approximate time of these discussions?

Mr. Holland: Do you want to put in the contract? That will fix the date. [248]

The Witness: I believe it is a matter of record and it speaks for itself as to the time.

Q. (By the Court): What kind of contract or what kind of arrangement did you have?

A. There was an agreement called the Maggie C. agreement drawn up between the two companies.

Q. What kind of agreement did you have?

A. It was an agreement that we would mine the ores from these mines belonging to Vanadium Corporation of America, process the ore in the Uravan plant, and turn the vanadium oxide over to the Vanadium Corporation of America for a charge, a total charge of 65c a pound, and that I believe was prior to 1939. I believe it went back to 1937-'38, but I wouldn't say for sure.

Q. Well, let me show you the contract. I think the date is in 1939. [249]

Mr. Alioto: I can fix the date by offering, if your Honor please, the minutes of the Vanadium Corporation of America. They don't contain the actual date, but there is a reference to the date on the appropriation which I think fixes the time in '39.

Mr. Holland: We have no objection to the intro-

(Testimony of Blair Burwell.)

duction of this, your Honor, provided the agreement itself is offered.

Mr. Alioto: The agreement itself will be in after we fix these negotiations, Mr. Holland.

We will offer it in evidence.

The Clerk: Plaintiff's Exhibit 43 admitted and filed into evidence.

(Minutes of Vanadium Corporation of America received in evidence and marked Plaintiff's Exhibit 43.)

Q. (By Mr. Alioto): Now, then, regardless—I think that regardless of the date which you may have in mind at the moment, would you be good enough to tell us what discussions took place between you and Mr. Kett about your company mining their claims?

A. Yes. Mr. Kett and myself discussed the arrangements for producing vanadium from their claims, and I was advised by Mr. Van Fleet to enter into these negotiations and arrangements of details with Mr. Kett because Vanadium Corporation of America had come to him in New York and requested a certain amount of [250] vanadium to be delivered to them, and they proposed, as long as they did not have an operating plant in that country, that we would use our plant and mill their ore both in their mines and that was in their stockpile and in their mill bins at Naturita.

And so on those directions from New York, Mr. Van Fleet who had been in touch, I presume, with the Vanadium Corporation in New York, I dis-

(Testimony of Blair Burwell.)

cussed with Mr. Kett—and to my best recollection—maybe there were others there at the time, but I think he was the one—an arrangement whereby we would take the ore out of the mill bins at Naturita of the Vanadium Corporation mill that had been mined or out of their stockpile at their mill at Naturita, which was about 14 miles from the mines, and then go upon these mining claims and mine and deliver ore and deliver to them the vanadium, and we would be paid 65c a pound for our services in mining and milling and in the production of the fused oxide for the recovered vanadium and delivered to them under that arrangement.

Mr. Kett was to have access to the records and to look over the mining operations and make any suggestions as to the method of mining and other details, I believe, were arranged between us as to carrying on the work.

Q. (By Mr. Alioto): Mr. Kett was to have access to whose records?

A. U. S. Vanadium Corporation's records—of production, [251] the tons removed, the grade and percentage of vanadium oxide, all the things that made up the accounting for vanadium.

Q. Now, was that agreement in fact carried out?

A. Yes, it was carried out and completed, insofar as this area and discussion——

Q. Do you recall the approximate period of time that it took to carry out that agreement?

A. I believe it took a year or possibly two years to mine and remove the ore of the particular min-

(Testimony of Blair Burwell.)

ing claims that I mentioned, the Maggie C. and other claims. Approximately two.

Mr. Alioto: Now, Mr. Holland, I do not happen to have the contract with me at the moment——

The Court: Do you happen to recall when that began?

The Witness: I am trying to refresh my memory. It may have been '42. No, it was prior to the Vanadium Corporation starting their plant. And you have the date here. I am confused a little on this thing. I would rather not——

Mr. Alioto: If your Honor please, Mr. Holland suggested that he would like the contract at this point. We have no objection to that, but I don't have my copy available at the moment. I will be very happy to have your copy, Mr. Holland.

The Witness: I think it was probably '39, and I refresh my memory by looking back. This is 20 years after it [252] happened and I am not infallible.

Mr. Holland: Here is a somewhat battered original, Mr. Alioto (handing to counsel).

Mr. Alioto: Fine. Thank you.

I will be very happy to have this copy replaced and returned to you, unless you have no desires in the matter.

Offer it into evidence, if your Honor please, the contract that the witness has referred to.

The Clerk: Plaintiff's 44 admitted and filed into evidence.

(Testimony of Blair Burwell.)

(Contract received in evidence and marked Plaintiff's Exhibit 44.)

[See Book of Exhibits.]

Q. (By Mr. Alioto): The date of this contract, signed by Mr. Bransome and Mr. Van Fleet, is June 30 of 1939. Now, then, Mr. Burwell, I show you a copy of a document which purports to be signed by you, written to the Vanadium Corporation of America under date of April 7, 1942, and ask you if that refreshes your memory as to when —how long you operated on the Vanadium Corporation of America claims.

A. Could I see the letter, please?

Q. Yes, sir, after Mr. Holland has looked at it.

Mr. Holland: Are you referring to the Maggie C. operation under the Maggie C. contract?

Mr. Alioto: We will get to it. You take a look at this letter, Mr. Burwell, and you explain to us—you [253] explain for us to which of the claims that letter refers (handing to witness).

A. (Witness examining.) This letter refers to the operations of the claims I just mentioned, the Maggie C. and others in Colorado, and also includes a later addition to the contract in Dry Valley, Utah; in 1942 that this arrangement and mining had been completed, and this states that this is the final statement. I signed it. I remember the letter.

Q. The final statement is under what date, Mr. Burwell?

A. 1942, April 7 of 1942.

Mr. Alioto: Thank you. We will offer this in

(Testimony of Blair Burwell.)

evidence, your Honor, as the plaintiff's exhibit next.

Mr. Holland: Dry Valley——

Mr. Alioto: We are going into the Dry Valley agreement. We have a copy of it, Mr. Holland.

Offer this into evidence.

The Clerk: Plaintiff's Exhibit 45 admitted and filed into evidence.

(Letter April 7, 1942, Burwell to V.C.A. received in evidence as Plaintiff's Exhibit 45.)

[See Book of Exhibits.]

Q. (By Mr. Alioto): Now, then, Mr. Burwell, we want to cover—I think I started out—we will go into a few of these joint arrangements and the next in order would be the Dry Valley. Did you personally participate in any negotiations with the Vanadium Corporation of America with respect to that [254] property?

A. Yes. In the same way that I participated in the Maggie C. and Cripple Creek, and, in fact, it was a continuation of the same kind of negotiations. But the Dry Valley area, however, was not in Colorado; it was over in this section in Utah (indicating).

Q. When you say——

A. Where my finger is (indicating).

Q. When you say "this section in Utah," you are pointing your finger at a section approximately two inches above the word "Monticello"?

A. That's right, and approximately 75 miles west of the Maggie C. and Cripple Creek.

(Testimony of Blair Burwell.)

Q. Would you be good enough to state the facts with respect to what that Dry Valley operation was about?

A. Well, the Dry Valley operation was a continuation of the Maggie C. contract, because after we had mined all the available ore out of the Maggie C. and other claims that were contained in the original agreement, the Vanadium Corporation needed more vanadium than was contained in those ores and so they drew ahead on their account; in other words, they asked for vanadium to be delivered in advance of mining and they owed the U. S. Vanadium Corporation vanadium in excess of what was obtained from the Maggie C. claims. Therefore, the Dry Valley property had been acquired by U. S. Vanadium Corporation some [255] time after that and afterwards was turned back to the Vanadium Corporation of America due to a conflict between the two companies in policy. And I won't bring that in. And, therefore, the Dry Valley had belonged to the Vanadium Corporation of America at that time under lease arrangements but United States Vanadium Corporation was mining it, and we proceeded to mine the additional ore out of the Dry Valley claims that was needed to give the Vanadium Corporation the pounds of vanadium oxide which they had drawn ahead of their account on the Maggie C.

They had asked for more vanadium than was contained in the ores and we gave them the vanadium before the vanadium was produced out of

(Testimony of Blair Burwell.)

the ores. We had lots of vanadium on hand and, therefore, when we came to settle up the account, they had received more ore on the delivery agreement than they had provided ore for in the original setup. Therefore, another area was allotted for the purpose of supplying that additional vanadium. It was somewhat mixed up and somewhat complex, but that's the best I can give you in answering it.

Q. Well, let's start at the beginning of that again. Let's start at the beginning. The Dry Valley claims were first owned by United States Vanadium Corporation, is that a fact?

A. Yes. They had an agreement to purchase from Molybdenum Corporation of America, and the Dry Valley claims had been part [256] of our acquisitions in Utah which were planned back in 1938—and I think you read a letter here about—and as part of a mill and processing plant which United States Vanadium Corporation was preparing to build in Monticello, Utah, and which United States Vanadium Corporation had acquired a plant site and the water rights—permission to use the water from the city of Monticello. We acquired the Dry Valley claims from Molybdenum Corporation of America as a result of a negotiation that was—and examination that started as early as 1938—in fact, far beyond—before that I made an examination in '31 for the same purpose. And I had a subsequent examination made in 1938 by Mr. Aime of our corporation, who reported on the reserves of the Dry Valley claims.

(Testimony of Blair Burwell.)

I discussed with Mr. Van Fleet and I also discussed with the Molybdenum Corporation, in company with Mr. Van Fleet, the acquisitions of the Dry Valley claims as a part of another plant that we were planning to build at Monticello, Utah, which is very tributary to the Dry Valley claims. That was a part of a proposal that we had made to the Metal Reserve and the War Production Board about 1942. And the Dry Valley claims were tributary to Monticello where we had preparations made to build a 100-ton-a-day plant before the Molybdenum Corporation—the Vanadium Corporation of America had thought of or contemplated a plant there, according to our knowledge.

Therefore, our acquisition of the Dry Valley claims [257] from Molybdenum Corporation was carried on by discussion between myself and Mr. Van Fleet and the Molybdenum Corporation officials, and also as a companion and accompanying part of a discussion of properties that belonged to the same corporation, Molybdenum Corporation of America in the Gateway district, tributary to the Gateway alloys mill, and over the period of years that we had been in touch with this Molybdenum Corporation as a part of our program of U. S. Vanadium Corporation expansion into Utah, and I have letters that I have written to the Carbide recommending this in '38——

Q. Excuse me—Mr. Burwell, you did acquire the rights to those claims, is that correct?

A. That's correct.

(Testimony of Blair Burwell.)

Q. It was about 1940, was it?

A. We were—I think that was correct.

Q. All right.

A. And we were mining those claims—started to mine those claims and had an ore purchase station near those claims on the main highway that goes between the railroad and Monticello, about six or eight miles distant from these mining claims, which were upon the cliffs in the valley just to the east—we had approximately 20, 25,000 tons that we had gathered there in a huge pile, by our scales, and sampling plant preparatory to moving them into Monticello for the vanadium plant. [258]

It's a long story.

Q. Well, let me ask you this——

The Court: Let's get down to this. When did you sell these claims to the other company?

The Witness: We didn't sell these claims to the other company, your Honor. The Vanadium Corporation of America, Mr. Bransome went to Mr. Haggerson and complained that we had bought these claims by the use of unfair information and demanded that these claims be turned over to the Vanadium Corporation of America because Mr. Van Fleet was a man of low repute and he had listened to a telephone conversation or heard about the price and that he had gone in and bought them at the time the Vanadium Corporation of America was considering buying them for some $200,000. But the story was entirely false. But Mr. Haggerson, the President of U. S. Vanadium Corporation,

(Testimony of Blair Burwell.)

President of the Electro Metallurgical Company, listened to Mr. Haggerson and called Mr. Van Fleet up on the telephone and said that Ted Bransome was raising questions and feels that we should turn back to the V.C.A. these claims that we bought in Dry Valley and asked him to meet with Mr. Bransome and settle the matter.

Well, we had purchased the claims, we were operating the claims, we were in possession of the property involving thirty-five or forty mining claims. We had, of course, been in touch with those claims since 1931, before the V.C.A. was [259] ever in that field, before Mr. Bransome ever heard about that country.

Therefore, Mr. Bransome and Mr. Van Fleet met, and I heard the story from Mr. Van Fleet—this is what he told me of the meeting. He came back——

The Court: What finally happened then?

The Witness: We were ordered to turn over the properties to the Vanadium Corporation by Mr. Haggerson, give them back to the Vanadium Corporation, because they had decided—the Vanadium Corporation—that they needed the plant, and Mr. Haggerson said, "Let Mr. Bransome have the claims," and there was quite——

The Court: This is what was done?

The Witness: That is what was done.

The Court: You mined the claims on the same—under the same agreement that you had mined these others?

(Testimony of Blair Burwell.)

The Witness: We were—yes—well, when this happened, we were mining the claims for our own purpose, not for the agreement.

When this happened, we said, "Well, there is one way to do this, they owe us vanadium for the Maggie C.; then if we have to give the claims up by order of Mr. Haggerson, we will go ahead and mine out the additional ore that we have coming from the Maggie C. agreement."

And so I negotiated with Mr. Kett an extension of the [260] Maggie C. agreement, but applying to Dry Valley, and when we got through mining that additional ore, I don't think they had very much luck getting back to the mines. I mean, we gutted the mines out as best we could and took the ore out and piled it up at the intersection of the road.

That isn't all the story, but that is all the answer to this.

Q. (By Mr. Alioto): Well, ultimately you did turn those claims over to the Vanadium Corporation of America, didn't you?

A. We were forced to, yes. We turned them over.

Q. You say you were forced to. You were forced to by whom? A. Mr. Haggerson.

Q. Who was he at the time?

A. President of U. S. Vanadium Corporation.

The Court: That was one of the subsidiaries?

The Witness: Of our group. In other words, this is an inter-company quarrel, your Honor. This is something that was going on in the family.

(Testimony of Blair Burwell.)

Q. (By Mr. Alioto): When you say it was an "inter-company quarrel," you mean that you and Mr. Van Fleet wanted to keep the claims.

A. Yes. We quarreled with Mr. Haggerson and we quarreled with them about turning these claims over to the Vanadium [261] Corporation.

Q. In any event, Mr. Haggerson of the Union Carbide subsidiary——

A. Overruled us.

Q. ——directed you to give them to the Vanadium Corporation of America?

A. That is correct.

Q. And that was done?

A. That was done.

Q. In approximately what year was it done?

A. Well, it was done prior to 1942. I think it was about 1941, because we mined for about six or eight months and that was prior to this 1942 letter.

Q. Now I am going on to another subject, Mr. Holland. If you want that contract in evidence, I have no objection to putting it in for you.

Mr. Holland: I think that you should.

Mr. Alioto: I think that speaks for itself. You can put it in if you want.

Mr. Holland: It will give the picture.

Mr. Alioto: All right.

Mr. Holland: I want to.

Mr. Alioto: All right, if you want to. You will supply a copy to put in? We have no objection to it.

Mr. Holland: All right. We will get it. [262]

(Testimony of Blair Burwell.)

Mr. Alioto: All right, as soon as you have one available, I will put it in for you, Mr. Holland.

Q. Now, then, Mr. Burwell, I want to call your attention to another mining transaction with respect to the Gateway area. Do you recall that there was a little independent mill around Gateway called Gateway Alloys, Inc. in 1939-1940?

A. Oh, yes. Yes, I am very familiar with the Gateway Alloys Company area.

Q. Incidentally, was that a very good ore body around—Gateway? I want you to point Gateway out first so that the jurors might see generally where it is.

A. That's it right here. There has been about $20,000,000 worth of vanadium uranium taken out of that area. Sure, it's a good area. [263]

A. Oh, my!

Q. All the property was in the hands of an independent, was it not?

A. It was in the hands of the Molybdenum Corporation of America, and the independent had a lease on that from the Molybdenum Corporation where they were paying for the property at so many cents a pound of vanadium mined. They still had control of it, but the fee rested with the Molybdenum Corporation.

Q. Did there come a time when you had a discussion with Mr. Van Fleet about what the policy of your company would be with respect to this little independent mine?

A. Well, I had conversations with Mr. Van

(Testimony of Blair Burwell.)

Fleet, or he had conversations with me, and I think they are covered by letters that have already been introduced.

Q. Did you agree on some plan of action with respect to that?

A. Well, I followed out instructions.

Q. What were the instructions with respect to this little mine, a rather valuable mine that was owned by the independent?

A. Well, to discourage them in any way we could. They offered the vanadium oxide to us for sale. I offered them 65c a pound for the oxide. We couldn't offer them any more. We didn't encourage them to produce any vanadium. We discouraged them. [264]

Q. Did you ever get your hands on that claim?

A. Oh, yes.

Q. How did that happen?

A. We made an arrangement with the Molybdenum Corporation of America to sublease under Brown the claims that are in the cliffs and mountains around the Gateway alloy plant. The Gateway alloy plant was down in a canyon, and these mines are about 1500 or 2,000 feet above it. The roads and trails went up. Took a lease on these claims, sublease, and paid the balance of the royalties into the Molybdenum Corporation, an on-the-ground deal and an overriding royalty to Harry Brown, and I think we moved out 12 to 15,000 pounds of easily accessible cheap ore from there to Uravan, a haul of about 65 miles. We constructed a road

(Testimony of Blair Burwell.)

up there and we cleaned out their accessible ore deposits.

Q. Wasn't that more expensive than the ore you could have mined from your own properties?

A. Yes, that ore cost us more than the ore we had immediately available at our own plant, because our own plant was located right here and our mines were within ten miles of that plant, and these mines were located at Gateway, and we had 45 to 65 miles of haul down a rough road here and, of course, that haul was costly.

Q. If that cost you more to get that ore rather than to get your own ore, why did you do that?

A. Well, we wanted to keep another vanadium operation from getting started.

Mr. Holland: Do you want these on Dry Valley, Mr. Alioto, the Dry Valley agreements?

Mr. Alioto: Yes.

Q. Whose instructions were you operating under when you did that?

A. I was operating under the instruction of Mr. Van Fleet, from the letters you have already introduced.

Q. (By the Court): Was that during the War?

A. No, this is prior to the War, your Honor. This was prior to the War.

Q. When was it?

A. I think this was 1939, if I am not mistaken, 1939.

Q. (By Mr. Alioto): As a matter of fact, that mill did go broke, didn't it, about 1940?

(Testimony of Blair Burwell.)

A. It did.

Mr. Alioto: Now, as an accommodation to my fine friend from Denver, I would like to offer the contracts he has handed me as exhibits next in order.

Mr. Holland: Thank you very much, Mr. Alioto.

Mr. Alioto: That is all right. I am glad to do it in this connection.

(The documents referred to were thereupon received in evidence and marked Plaintiff's Exhibit 46.)

[See Book of Exhibits.]

Q. (By Mr. Alioto): In 1946, Mr. Van Fleet was the Chairman of the Board of the United States Vanadium Corporation, was he not?

A. 1946? He was chairman just before he died.

Q. And you were a director?

A. I was a director and so was he.

Q. And a vice-president?

A. That is right.

Q. And the head man on mining operations?

A. That is right.

Q. Did there come a time when you had a discussion with Mr. Van Fleet about removing certain files from the United States Vanadium Corporation?

Mr. Archer: Your Honor, I object to this. This was long before this lawsuit was filed and could have no possible relevancy here. The files were all produced in Denver and I do not see what they have to do with this lawsuit.

(Testimony of Blair Burwell.)

Mr. Alioto: It was seven years after the plaintiff went into business—eight years after the plaintiff went into business, when he was still trying to get into it.

The Court: What files are you talking about?

Mr. Alioto: Some of the files that have been presented in this courtroom, among others. I offer to prove, if your Honor please, and I made a statement already in my opening statement, that there was an attempt to destroy certain [267] files and that certain of them were preserved because of the belief that the uranium production was going to be inhibited by reason of being tied to the vanadium sales and certain agreements in connection with vanadium sales.

The Court: Go ahead and ask your question.

Q. (By Mr. Alioto): Did you have such a discussion with Mr. Van Fleet?

A. Yes, I did.

Mr. Holland: This is not offered against the Vanadium Corporation?

Mr. Alioto: No, it is offered against the Union Carbide, Mr. Holland.

Mr. Holland: Thank you.

Mr. Alioto: I thought you said "good." I am sorry.

Mr. Holland: I didn't hear you.

Q. (By Mr. Alioto): Where did that discussion take place, if you recall, Mr. Burwell?

A. Las Vegas, Nevada, at the El Rancho Vegas Hotel.

(Testimony of Blair Burwell.)

Q. Prior to that time, did you and Mr. Van Fleet have a controversy with Mr. Priestley about vanadium production or your uranium production?

A. I had a conversation at this directors' meeting that I think you asked me questions about—officials of Carbide. That was in 1946, too. [268]

Q. Who was present at this meeting in Las Vegas besides you and Mr. Van Fleet?

A. Just myself, Mr. Van Fleet, and his wife was there.

Q. Was Mr. Van Fleet sick at the time?

A. Yes.

Q. Would you be good enough to state the substance of that conversation, Mr. Burwell?

A. Again, I will have to give you a statement of what led up or it wouldn't make sense. May I do so?

Q. If you will state it factually, sir.

A. Mr. Van Fleet asked me to meet him in Las Vegas, Nevada. He had had an operation for cancer, and he had picked up his wife in San Francisco, visiting her mother, and was going through to Tucson, and he wanted me to meet him there. wired me, and I came in from the East and met him.

He had been badly cut up under surgery, and he told me this. He said, "I wanted you to meet me here today, Blair. I don't feel that I have long to live. I have a number of records of the vanadium case, the operations of the Union Carbide which I have taken to my apartment. They are

(Testimony of Blair Burwell.)

copies of letters. You have seen them all, and I have put them in a briefcase down in my apartment and I told Mrs. Orr"—who was the maid who cleaned the apartment. "She lives a couple of floors below and keeps the key, because there is nobody else there. In case I die, I want you to take those records—those records [269] are to be sent out to you, and I want you to do this with them and for this reason."

He reviewed the story of the uranium field and the vanadium business. He reviewed the War period and the Manhattan district period, which was just over.

He said, "I feel that the security of the United States depends upon getting a supply of vanadium-uranium in the future from the Colorado Plateau, and if the vanadium—if it is channeled through the vanadium industry as it has been in the past, and which I believe is going to be done, we will only get 300,000 pounds of uranium a year, and if we do not have more than 300,000 pounds a year of uranium, we are in peril in the United States in the future. The issue has become bigger than the corporation. The issues in this thing are beyond corporate interests. And while I have been a loyal carbide man for 30 years, I have come to the conclusion that Mr. Priestley and Mr. Remmers and Mr. Haggerson are, unfortunately, too unaware of the essentials of producing uranium, and that they may prevail upon the Atomic Energy Commission, which is just being formed, to channel the vana-

(Testimony of Blair Burwell.)

dium — the uranium production of this Colorado Plateau through the vanadium interests, in tune with vanadium sales on the markets, and the life and death of our country, I feel, rests in opening the reserves of uranium which we know exist and of which we have made surveys. [270]

"Now, the situation has gone beyond mere corporate interest, and I am in the position of telling you that if you think that the security of the United States demands that this program be stopped and this perversion of our resources should be stopped, you take these records and give them to the Department of Justice or you do anything that you can to stop any more of this monkey business."

He said, "I will probably be misunderstood, why I should do these things. Some of these letters more or less damn me for being partisan to the corporation, sure, as long as the corporation interest and its financial interests are involved, that position I would take, that nobody would ever hear anything outside of the corporation about it, but you take these records, and when I die and you think that the situation is that Priestley and Remmers will forget and overlook the tremendous amount of research reports, proposals to a general gross of the Manhattan district and be so careless of the reputation of Union Carbide that they would expose that company to censure, you would have to take them and give them to the Department of Justice or do what you need.

"I feel," he said, "that I would fail in my duty

(Testimony of Blair Burwell.)

as a Carbide official if I expose this corporation to the danger of being blamed in the future for not taking care of its national opportunities."

Q. Did he then hand you certain documents?

Mr. Archer: Your Honor, I move to strike this testimony. The testimony obviously involves the question of whether we produced enough uranium for the Atomic Energy Commission. We certainly can not try that in this lawsuit even if we wanted to. It concerns a period after 1946, and this is something which is obviously classified, and we can't try in this lawsuit.

Mr. Alioto: If your Honor please, the testimony is already in this record——

The Court: The objection is sustained. It is immaterial. It has nothing to do with the issues in this case. I do not know how much you are going to cover in territory in this case.

Mr. Alioto: We are about to finish, your Honor.

The Court: If we can get down to the lawsuit and try the lawsuit itself, the Court would feel better about it.

Mr. Alioto: We were about to finish, if the Court please, by handing him some of those documents.

The Court: The objection is sustained and the jury will disregard the statement. We will recess at this time until 10:00 o'clock tomorrow morning.

(Recess until 10:00 o'clock a.m. tomorrow, Wednesday, June 4, 1958.) [272]

June 4, 1958, 10:00 o'clock a.m.

The Clerk: Continental Ore Company versus Union Carbide and Carbon Corporation, et al, further trial.

Mr. Holland: Ready.

Mr. Alioto: Ready.

BLAIR BURWELL,

a witness on behalf of the plaintiffs, having been previously duly sworn, resumed the stand and testified further as follows:

Direct Examination—(Continued)

Q. (By Mr. Alioto): Now, Mr. Burwell, I want to conclude this examination by directing your attention to certain independent mills that operated on the Colorado Plateau for a short period of time and that figured in the supply to the Continental Ore Company.

Did you know an oxide mill on the Colorado Plateau called the Mesa Vanadium Mill?

A. Yes, I did.

Q. Could you, by reference to that map that is before you—and we could turn it so that the Jury in back may see it—could you by reference to that map locate the approximate location of the Mesa Vanadium Mill?

A. Yes. It's in the same general uranium district just where my finger is, called Disappointment Creek.

(Testimony of Blair Burwell.)

Q. Disappointment Creek is in that area that is called [274] the Slick Rock area?

A. That's right.

Q. On the map there.

Do you recall who it was that was operating the Mesa Vanadium Company?

A. It was a group of Grand Junction businessmen, oh, Mr. Claybaugh is one, and an attorney—I don't recall his name—a group of local businessmen.

Q. Do you recall approximately when it was that that mill was started in that area?

A. I think about 1939, somewhere in there.

Q. At that period of time, Mr. Burwell, there was a market for vanadium oxide in export, was there not?

A. I believe that's correct.

Q. And do you recall what the export price of vanadium oxide was at that time from these independent mills?

A. That I do not know precisely. Approximately $1.10 a pound, $1.00 to $1.10 a pound.

Q. Do you recall what your price was to the oxide mills at the time for vanadium oxide?

A. $1.10.

Q. Did you have a 65-cent price in 1939 for any of these mills?

Mr. Archer: I object to that as leading. He already testified to $1.10. [275]

The Court: Sustained. Let the witness testify.

The Witness: Repeat the question, please.

(Testimony of Blair Burwell.)

Q. (By Mr. Alioto): Well, that question is withdrawn.

What is your best recollection as to the price paid by the United States Vanadium Corporation for vanadium oxide in August of 1939?

Mr. Archer: I object, your Honor. It has been asked and answered.

Mr. Alioto: Let him answer.

The Court: Repeat your question, please.

Q. (By Mr. Alioto): Give us your best recollection now of the price paid by the United States Vanadium Corporation under your general duties to the independent mills for vanadium oxide in 1939.

A. You mean for red cake?

Q. Let's take the red cake first.

A. Anywhere from 50 to 65 cents—it was no fixed price, simply a matter of negotiation.

Q. All right. And you carried on those negotiations, didn't you?

A. That's correct.

Q. Now, did there come a time when you decided, in connection with your duties, to do something about this Mesa Vanadium Mill?

A. That's correct. [276]

Q. And what was it that you did?

A. We took over the operation of the Mesa Vanadium Mill; run a test operation on it for a short period of time; shut it down and used it as an ore-buying station; purchased it from the——

(Testimony of Blair Burwell.)

Mr. Holland: That evidence is not offered against the Vanadium Corporation, I take it?

Mr. Alioto: No, at the present time it is being offered only as against Union Carbide.

Q. And do you recall when it was that you shut it down? A. Not exactly.

Q. Did you need a mill at that time?

A. No.

Q. Mr. Burwell?

A. No, we did not need a mill at that time.

Q. If you didn't need a mill, why did you take it over and shut it down?

A. We needed an ore-buying station at that time. We didn't need the mill.

Q. Why did you buy the mill if you didn't need it?

A. To keep it out of production.

Q. Do you know another little independent mill that started around 1940 at Loma?

A. Yes, I do.

Q. Do you know a man named Morrison?

A. I don't recall.

Q. Would you be good enough to indicate on that map the approximate location of the Loma Mill?

A. Approximately at this point on the Colorado River, just west and north of Grand Junction.

Q. Is that called the Yellow Cat Mining District area? A. No.

Q. What is that called?

(Testimony of Blair Burwell.)

A. It's in the Grand Junction Valley. It's approximately 90 miles east of the Yellow Cat area.

Q. Did you hear in the course of your duties as an officer of United States Vanadium Corporation that some independent was trying to start a mill up there? A. At Loma?

Q. Yes.

A. Oh, yes, I knew that they were starting a mill at Loma.

Q. Did you do anything about that? Let me ask this: Prior to the time that you heard about this mill was United States Vanadium purchasing ore in the area of that mill?

A. No. Prior to the starting of that mill we were not purchasing ore in the area, any areas close to this mill.

Q. Well, then, after the mill started, did you start buying ore there?

A. Where do you mean? In the area tributary to the mill?

Q. Yes.

Mr. Archer: Could we have the date of this?

Q. (By Mr. Alioto): What year was this?

A. It would be somewhere around '41 or '40-'41. I'm not too sure of the date.

Mr. Holland: Mr. Alioto, the testimony with respect to the Loma mill is offered only against Carbide?

Mr. Alioto: Yes, at this point, Mr. Holland, that is correct.

Q. The pending question is: After you heard

(Testimony of Blair Burwell.)

about somebody wanting to start this mill in that area, did you take any steps about buying ore in the area that was tributary to the mill?

A. Why, we started an ore-buying station in the area at Thompsons, Utah, which is directly west of it on the railroad, and from which the Loma mill was obtaining its ore supply.

Q. And what was——

A. That's the Yellow Cat area.

Q. Did you need the ore at that time?

A. No.

Q. Why did you set up that ore-buying station right by this mill?

A. Well, there were two reasons: one was to, of course, to acquire the ore for future needs of the corporation, and we also purchased the ore to keep it away from the Loma mill.

Q. Did you pay more for that ore than you paid for ore [279] in the vicinity of your Uravan plant?

A. No. We paid the same price.

Q. Did you have to haul it some considerable—a great distance—a greater distance than ordinarily would be the case?

A. Yes. We had to haul it approximately 150 miles compared to about 7 or 8 miles.

Q. So that ore cost you more, did it not?

A. That's right.

Q. Were you under some instructions to keep that ore away from this little mill?

Mr. Archer: I object to that as leading.

(Testimony of Blair Burwell.)

The Court: Sustained. Leading and suggestive.

Q. (By Mr. Alioto): You stated in your testimony that you bought that ore—one of the reasons for buying that ore was to keep it away from this mill? A. That's right.

Q. Did you succeed in keeping it away from the mill?

A. The mill closed down for lack of ore.

The Court: Well, could the mill purchase ore the same as you did? A. They could.

The Court: At the same price?

A. They could.

Q. (By Mr. Alioto): Did you outbid them for any of [280] that ore?

Mr. Archer: I object to that as leading.

Mr. Alioto: All right. I was trying to follow up the Court's question.

Q. Let me ask it this way——

The Court: He said the same price.

Q. (By Mr. Alioto): What was the difference, approximately, to you in buying that ore from that station, and transporting it to Uravan, as against buying the ore in the vicinity of Uravan?

A. The difference was the cost of the haul from that point to Uravan.

Q. And that was a haul of 150 miles, did you say? A. Approximately.

Q. All right. How much did that haul cost, approximately?

A. Five cents a ton-mile—seven dollars and a half a ton.

(Testimony of Blair Burwell.)

Q. Was there any hauling allowance of any type made to the miners in that area from that ore-buying station of yours? A. No.

Q. Do you recall the approximate price you paid for that ore?

A. As I told you before, we paid approximately the same price in Uravan, and to the best of my recollection it was somewhere around 20, 21 cents.

Q. Now, since—well, I think you already have given the reason for your establishing the ore-buying station there.

Now, I want to direct your attention to — we spoke about the Gateway situation yesterday. I think we p[illegible]ably covered it.

Incidentally, do you know the name of the man who was the founder, the original founder of the Vanadium Corporation of America?

A. Oh, yes.

Q. What was his name?

A. J. J. Flannery. He was the founder of the whole vanadium business in the United States.

Q. And how did you come to know him?

A. Well, I knew him in 1920. I was a young agent around the school. He was the owner of the Standard Chemical Company, which was purchased later by the Union Carbide and became the Uravan plant. I knew him when he was visiting the operations at Uravan.

Q. Did you——

A. They called it the Joe Junior Mill—that was for his son Joe Junior Flannery.

(Testimony of Blair Burwell.)

Q. Did you work for Mr. Flannery?

A. I worked for Mr. Flannery.

Q. For how long? A. Two years. [282]

Q. And Mr. Flannery was the man who founded the predecessor company to the Vanadium Corporation of America?

A. Mr. Flannery had founded the American Vanadium Company.

Q. Which was later purchased by the Vanadium Corporation of America, was it?

A. That was my understanding.

Q. Did Mr. Flannery ever tell you how much money he started with in the vanadium business?

Mr. Archer: I object to that, your Honor. This is long before 1938.

The Court: Yes, sustained.

Mr. Alioto: I understand, if your Honor please, that there has been some testimony here about how much money you need to get into the vanadium business.

Mr. Holland: The cost of getting into the business in 1920 has no relation to the cost of getting in it in 1938.

Mr. Alioto: I think, if your Honor please, that is a relevant——

The Court: The Court has ruled on it.

Mr. Alioto: All right, if your Honor please.

I am aware of the Court's ruling with respect to the matter of not introducing material prior to 1938. However, I am also aware of the fact that I am under some obligation to make a record on

(Testimony of Blair Burwell.)

it because of our position that the testimony now makes relevant the precise nature of the agreement which [283] existed in 1938, and we say that the precise nature of that agreement is set out very specifically in documents written by the leading officers of the United States Vanadium Corporation and of the Vanadium Corporation of America. One of those documents, of course, is in the MacQuigg report, of which we had some conversation about, and I would like to lay a foundation for that matter, if your Honor please.

Q. Mr. Burwell, I show you a copy of a document which I would respectfully ask that the Court mark it for identification.

The Clerk: Plaintiffs' 47.

(Whereupon the document referred to was marked Plaintiffs' Exhibit No. 47 for identification.)

Mr. Holland: Are you going to make an offer of proof?

Mr. Alioto: No.

Q. Mr. Burwell, would you be good enough to look at that document and then, without revealing its contents, just state generally what it is.

A. Yes. This is a report on vanadium by one of the metallurgists for the Union Carbide and Carbon Research Corporation. It pertains to——

Mr. Holland: You said without revealing what was in it.

The Court: Don't state the substance of it. What is the date of it?

(Testimony of Blair Burwell.)

Mr. Alioto: I think the date you will find in that first page at the bottom, Mr. Burwell.

A. It is June 1935.

Q. Would you be good enough, Mr. Burwell, to identify the Union Carbide & Carbon Research Corporation? What is it?

A. May I look at your chart, please?

Q. It doesn't appear directly on the chart, but does it have some relationship to the companies that do appear on the chart, Plaintiffs' Exhibit 27 for identification?

A. It is a research organization which is operated by the Union Carbide & Carbon Corporation, and particularly under the jurisdiction and management of the Metallurgical Company.

Q. (By the Court): What is a research corporation?

A. A research corporation, your Honor, is a group, or a manner of organizing a group of research people in a corporation to do research on problems of metallurgy, or problems of making new products, or problems of marketing, and often those research groups are contained in a corporate organization for the purpose of financing, or for the purposes peculiar to their——

Q. Was it unusual for these companies that were engaged in these mining operations to engage in very extensive research investigation of the material and the manner of manufacture and the future of the development?

A. No, your Honor; it is the usual thing.

(Testimony of Blair Burwell.)

Q. (By Mr. Alioto): Did there come a time when the officials of the [285] United States Vanadium Corporation and Electro Met delegated to the research organization of Carbide the task of making a study of the vanadium problem as it existed in 1935? A. They did.

Mr. Archer: I object to the question, your Honor, not only on the time basis, but it is leading and suggestive.

The Court: The objection is sustained and the jury will disregard the answer.

Q. (By Mr. Alioto): Would you tell us with respect to the document which has now been marked Plaintiffs' Exhibit 47-D for identification, whether that document ever came up for discussion among the leading officials of the United States Vanadium Corporation and the Electro Metallurgical Company?

Mr. Archer: I object, your Honor.

The Court: That is prior to 1938?

Q. (By Mr. Alioto): Well, was it discussed at any time after January 1, 1938?

A. Yes, it was discussed in 1938, it was discussed in 1939, it was discussed in 1940, 1941, 1942, 1943, and 1944.

Q. What was the nature of the discussion that took place about this document after January 1, 1938?

Mr. Archer: I object, your Honor. I think we ought to establish who was present, and that sort of thing. [286]

(Testimony of Blair Burwell.)

Mr. Alioto: We are going to do that.

Mr. Holland: If the Court please, Mr. Alioto, who never gives up, is now attempting, through conversations subsequent to 1938, to go into this whole pre-1938 and 1939 matter.

The Court: The Court has ruled on this, that transactions prior to 1938 are incompetent.

Mr. Alioto: Yes, if your Honor please.

The Court: The plaintiff in this case, according to your allegations and your proof, started in business in 1938.

Mr. Alioto: That is correct.

The Court: The gist of this lawsuit is really not constitution of the monopoly, but it is whether or not this plaintiff was damaged because of these various defendants, and, of course, that can only be after he went into business. Now, what transpired when he was still in Europe is incompetent, and the Court holds that all of these transactions prior to 1938 are incompetent.

Mr. Alioto: Yes, I am aware of the Court's ruling. As I pointed out just before I started my inquiry, I recognize that. But now, if your Honor please, I would like to show through this witness that there was an agreement in existence in 1938 and 1939 which directly impinged upon and damaged this plaintiff. [287]

The Court: We are not going into what transpired before 1938.

Mr. Alioto: My question asks him for discussions after January 1, 1938.

(Testimony of Blair Burwell.)

The Court: I understand. The objection will be sustained. I just don't want to go into it at all. You are going into it in another way. That is directly opposite to the Court's ruling.

Mr. Alioto: No, I do not mean to be, if your Honor please. I think the Court knows that I have not been otherwise than deferential to the Court. However, in carrying out what I conceive to be the things that have to be done here in order to preserve this record, it is my understanding of the law, from United States versus Standard Oil, for example, that if you prove an existing agreement, say in 1939, once you have established that there is such an agreement in 1939, that thereafter you may show the nature of that agreement by its origin. That is the basis I am talking about.

The Court: You may show any transactions that took place after 1938, but you cannot base your question on what occurred prior to that time. The Court has ruled on that.

Mr. Alioto: I understand that, your Honor, but so the Court will not think I am being anything but respectful, I want to point out—whether I am correct in my view—I want [288] to establish the existence of an agreement in 1938.

The Court: What you are trying to do is to show an agreement that existed long years before 1938, and that was discussed at a later date.

Mr. Alioto: No, that is the opposite of what I am trying to do, if your Honor please. What I

(Testimony of Blair Burwell.)

am trying to do is to show that there was this agreement in 1938. That is the first step.

Now, I think the Court has heard enough evidence from this witness to know that there was some kind of collaboration between these two defendants. But quite aside from that, what I want to show is that there was this agreement. Then the question is, What is the nature of this agreement?

The only way you can know the nature of this agreement, if it started in 1935 and continued through 1938,——

The Court: The Court has ruled on the point. Let us go to something else. You may have an exception.

Mr. Alioto: May I, so I won't have to take up the time of the Court and the jury further, at this time make an offer of proof along these lines, if your Honor please?

Mr. Holland: I believe the offer of proof should be made in chambers.

The Court: You can make a general statement, but not the contents, now.

Mr. Alioto: I do not intend to go into the [289] contents, if your Honor please. I intend to make a general statement, and I will hand the document to Mr. Holland, so there won't be any question about my revealing the contents of it.

Mr. Holland: I know Mr. Alioto's general statements, and I think we are precluded, of course, from going prior to 1938. This was all taken up in the other case to which I referred in my open-

(Testimony of Blair Burwell.)

ing statement. Your Honor wanted to limit the proof. Now, I believe if you want to limit the proof, that this offer of proof should be made in the absence of the jury, your Honor.

Mr. Alioto: With respect to Mr. Holland's statement, if your Honor please, documents prior to 1938 were admitted in the other case.

Mr. Holland: That is exactly what I said. The whole thing was brought out in that case, and we were acquitted.

Mr. Alioto: Acquitted after a ten-year delay, yes.

The Court: Your offer of proof is as to the contents of agreements made prior to 1938?

Mr. Alioto: No, if your Honor please, it is not.

The Court: What is it?

Mr. Alioto: My offer of proof is to prove the nature of the agreements that existed from January 1, 1938, to [290] the date of the filing of this complaint. That is all I offer to prove. And I offer to prove that from documents which were executed prior to 1938, but which in detail set out the precise agreement which existed from 1938 to 1947.

May I give you this example, if your Honor please: Let us assume I make a lease, an ordinary lease,——

The Court: Your offer of proof is denied. Exception allowed. We are not going back into—you will get back to '49 if we go very much further.

Mr. Alioto: If the Court will indulge me 30 more seconds to complete the record, I would at

(Testimony of Blair Burwell.)

this time formally offer into evidence that document dated June 19, 1935, which has been marked Exhibit 47-D for identification.

The Court: Very well.

Mr. Alioto: May we have the nature of the objection to the document? Is there any question about authenticity? I do not want any question about that.

Mr. Holland: No question of authenticity. The nature of our objection was made before the case started, and the Court ruled at that time.

The Court: The objection will be sustained. Exception allowed.

Mr. Alioto: I do not believe, if your Honor please, with deference, that at this stage of the proceeding the record shows the nature of the objection being made by Mr. Holland [291] and Mr. Archer.

Mr. Holland: I think the record shows before the case ever started we made an objection in your chambers. We filed a pre-trial brief with the Court. I do not see any point in dragging this on.

Mr. Alioto: There was no record made in chambers, if your Honor please.

The Court: The objection is sustained. Exception allowed. Proceed.

Mr. Alioto: May I have a series of documents referring to this report written by the chief managing agent of the United States Vanadium Corporation—I would like to have these marked as our exhibit next in order, and I would respectfully re-

(Testimony of Blair Burwell.)

quest that they be marked as a group, if you would, sir. They are being offered at this point solely against the Union Carbide Company. There was no objection by Union Carbide Company to the previous exhibit, which was not offered against the Vanadium Corporation of America, but it was the Vanadium Corporation of America that objected. So we have a record here that is very much upset, I think, if your Honor please.

Mr. Archer: I think the Court stated at the beginning of the trial an objection made by one defendant would accrue to the other unless I disavowed it, and I would state my objection to these on the same basis as in the memorandum, [292] and on the basis they are incompetent, irrelevant and immaterial.

The Court: The objection will be sustained.

Mr. Alioto: When you say they are incompetent, I take it, Mr. Archer, you are not objecting on the ground of authenticity?

Mr. Archer: I take it they are all ones I have seen.

Mr. Alioto: Yes, they are the ones about which we had the pre-trial stipulation. In other words, the genuineness of the document set forth in the exhibit which is now marked 48 for identification is conceded, Mr. Archer?

Mr. Archer: Well, if you tell me they are the ones I looked at——

Mr. Alioto: You look at them. They concern

(Testimony of Blair Burwell.)

Mr. Van Fleet, Mr. Burwell, and the other folks like that.

Mr. Holland: I have not seen the documents, but I will concede it.

Mr. Archer: Yes.

Mr. Alioto: So we will offer that in evidence, if your Honor please. I understand the Court has rejected that evidence.

The Court: The objection is sustained and an exception is allowed.

Mr. Alioto: In order further to make the record [293] on this I now offer in evidence and ask to be marked for identification at the present time, only, documents of both companies, Vanadium Corporation of America and Union Carbide, written prior to January 1, 1938, but which evidence joint communication between the companies respecting agreements which we maintain were in effect in 1938, as this witness has testified. After I get these back——

Mr. Holland: I object to it as incompetent, irrelevant and immaterial.

Mr. Archer: Same objection, your Honor.

The Court: Objection sustained.

Mr. Alioto: Would the Court have any objection if we have these marked as one group?

The Court: You may do that.

(The documents referred to were marked Plaintiffs' Exhibit No. 48 for identification, as a group.)

(Testimony of Blair Burwell.)

Mr. Alioto: I think I simply asked that they be marked for identification at this point.

Mr. Neaher: Mr. Alioto, may I suggest that you mark as one group the Union Carbide documents, and keep the V.C.A. separately?

Mr. Alioto: I have no objection to doing that.

We ask to be marked for identification, if your Honor please, documents of Union Carbide, being letters dated March 9, 1938, March 31, 1937, November 3, 1937, and December 29, 1936. [294] I will ask that these documents of Union Carbide, between officers such as Mr. Van Fleet, Mr. Gormely and Mr. Burwell, be marked for identification as a plaintiffs' exhibit—only for identification at this point.

(The documents referred to marked as Plaintiffs' Exhibit No. 49 for identification.)

Mr. Alioto: We now offer these documents which have been marked 49 for identification into evidence.

Mr. Holland: Objection. The objection has already been made.

Mr. Archer: Same objection.

The Court: Are you offering them for identification?

Mr. Alioto: No.——

The Court: The objection is sustained. Exception allowed.

Mr. Alioto: I now ask that there be marked documents of the Vanadium Corporation of America, being a communication between the secretary,

(Testimony of Blair Burwell.)

Mr. P. J. Gibbons, to Mr. B. B. Bransome, president, Mr. Charles Reece, Mr. Davis, Mr. King, Mr. Dunne and Mr. Gibbons. It is a memorandum on a conference held in the New York office. I ask that be marked for identification together with a document entitled "Conference on Raw Material Situation Held in New York Office," between the following gentlemen: Mr. Bransome, Mr. Davis, [295] Mr. Reece and Mr. Gibbons, with the report on this conference by Mr. Gibbons dated February 9, 1937. I will ask that that be marked for identification together with the other document of the Vanadium Corporation of America.

(The documents referred to were re-marked as Plaintiffs' Exhibit No. 50 for identification.)

Mr. Alioto: We will now offer these documents into evidence, if your Honor please.

Mr. Holland: To which we object on the usual grounds.

The Court: Objection. Exception allowed.

Mr. Alioto: I would now like to offer a series of documents, if your Honor please, by both companies, which I will offer separately, that relate to direct negotiations of the two companies involved, they being dated, this group, the Union Carbide group, March 25, 1936, a letter from Mr. Van Fleet to Messrs. Gormely, Haggerson, Sneath and Priestley; a letter dated March 25, 1936, marked "Vanadium Situation, Vanadium Corporation of America," from Mr. Van Fleet to Mr. Gormely, Mr. Haggerson, Mr. Sneath and Mr. Priestley; and a

(Testimony of Blair Burwell.)

letter dated March 25, 1936, marked "Vanadium Situation, Vanadium Corporation of America," from Mr. Van Fleet to Mr. Gormely, Mr. Haggerson, Mr. Sneath and Mr. Priestley.

I will ask that these Union Carbide documents, about which I understand that there is no question of authenticity, [296] Mr. Archer, be marked for identification at this point.

(The documents referred to were marked Plaintiffs' Exhibit No. 51 for identification.)

Mr. Alioto: We will offer Plaintiffs' 51 into evidence, if your Honor please.

Mr. Archer: To which we object on the grounds stated in the memorandum filed, and that they are incompetent, irrelevant and immaterial.

The Court: Objection sustained. Exception allowed.

Mr. Alioto: I respectfully ask the clerk if he will be good enough to take these documents and mark them for identification, if it is all right with the Court.

(The documents referred to were marked Plaintiffs' Exhibit No. 52 for identification.)

Mr. Alioto: These documents are documents of the Vanadium Corporation of America about which, Mr. Holland, I take it there is no question of authenticity?

Mr. Holland: Correct.

Mr. Alioto: And they relate, if your Honor please, to joint conferences between personnel of Vanadium Corporation of America and the Union

(Testimony of Blair Burwell.)

Carbide Corporation. They are dated November 6, 1935, November 13, 1935, November 15, 1935, July 10, 1934, July 6, 1934, March 13, 1934, April 3, 1935, April 2, 1935, it being the contention of the plaintiff that these documents set forth the nature of the agreement existing from [297] 1938 to 1949. We will offer them for that purpose.

Mr. Holland: To which we object on the usual grounds, your Honor.

The Court: Objection sustained and exception allowed.

Mr. Alioto: I am about to finish this very shortly, your Honor. I am trying to get it down as hurriedly as possible. Another two minutes should do it.

I now would ask that this next series of documents be marked for identification.

Again, Mr. Archer, I take it there is no question about the authenticity and genuineness of these documents, and there is no objection based upon foundation. I am sure of that. I do not think there is.

Mr. Archer: There is no question of the authenticity of those.

Mr. Alioto: I mean where these things are signed, for example, by the president and the vice-president of the companies.

Mr. Archer: Oh, yes, those are the signatures of the men they purport to be, and if there are no copies of those signatures I will stipulate that they all signed them.

(Testimony of Blair Burwell.)

Mr. Alioto: These documents, if your Honor please, are documents of the Union Carbide Company, and are interoffice memoranda and letters involving the top officials of [298] these companies with respect to the matter of vanadium, and we offer them into evidence at this time for the purpose of establishing the origin of the conspiracy claimed by the plaintiff in 1933, which the plaintiff contends existed from January 1, 1938, through 1949, and these documents we believe show the nature of the combination between these defendants which existed in 1938, 1939, 1940, and through 1949. We will offer these into evidence at this point, if your Honor please.

Mr. Archer: Same objection, your Honor.

The Court: Objection sustained and exception allowed.

(The documents referred to were marked Plaintiffs' Exhibit No. 53 for identification.)

Mr. Alioto: We offer next a set of minutes of the Vanadium Corporation of America dated the 4th day of April, 1943.

(The minutes referred to were marked Plaintiffs' Exhibit No. 54 for identification.)

Mr. Alioto: We will now offer this in evidence, if your Honor please, to prove the nature of the combination existing from 1938 to 1949, and also to show the origin of the combination which existed during those years.

Mr. Holland: Same objection, your Honor.

(Testimony of Blair Burwell.)

The Court: Objection sustained. Exception allowed. [299]

Mr. Alioto: To complete the record on the examination of this witness, if your Honor please, I would like to offer at this point two documents of the Vanadium Corporation of America dated after January 1, 1938, and relating to the Gateway Alloys Company, around Gateway, about which this witness testified yesterday.

The Court: What are the dates?

Mr. Alioto: I will give those to your Honor.

Mr. Holland: No objection from Vanadium Corporation.

Mr. Alioto: The dates, if your Honor please, are October 22, 1939, and October 3, 1938, and you recall the witness gave some testimony about this Gateway Alloys Company in the years 1938 and 1939. These are documents from the other company relating to the same matter.

We will offer these two documents in evidence, and respectfully ask the clerk to mark them as one exhibit.

(The documents referred to were marked Plaintiffs' Exhibit No. 55 for identification.)

Mr. Alioto: They are offered against the Vanadium Corporation of America at this time.

Mr. Archer: I would object, your Honor. Some of them refer to their comments about our company. I am sure I can understand why Mr. Holland does not object to their calling us names, but I

(Testimony of Blair Burwell.)

would object to their going into [300] evidence on any basis.

The Court: What are they?

Mr. Alioto: If your Honor please, the Brown mentioned there is the Brown connected with the Gateway Alloys about which the Court heard testimony yesterday. [300-A]

Mr. Archer: There is only one to which I am objecting and I don't know which one it is on.

Mr. Alioto: I think it is the second one you are objecting to.

Mr. Archer: They are both marked as one exhibit.

Mr. Alioto: Well, I will segregate the exhibits if there is going to be an objection to one only.

The Court: The objection will be overruled. Exception allowed. I don't see the materiality.

Mr. Alioto: Well, we will tie it in later on. This is one of the sources of supply where the plaintiff company that devolved later on, if your Honor please. It will be tied up.

The Clerk: Plaintiffs' Exhibit 55 admitted and filed into evidence.

(The memo, October 22, 1939, from Robert Sterling to Frederick F. Kett, marked in evidence Plaintiffs' Exhibit No. 55.)

[See Book of Exhibits.]

Mr. Alioto: We have no other questions at this point, if your Honor please, but I would like the opportunity, in chambers, as Mr. Holland suggests, to make a rather extensive offer of proof on addi-

(Testimony of Blair Burwell.)

tional testimony that this witness would give on the combination charged here covering the period prior to 1938; it being our contention that this detailed offer of proof will show on its face that it relates to the same [301] agreement that was in existence between '38 and '39 and explains the nature of the component parts of that agreement. So I would like to conclude my examination of the witness now and respectfully request the Court to give me that opportunity to make an extended offer of proof, for the record, in chambers or any other place the Court desires.

The Court: Very well.

Mr. Holland: Do you want these (indicating documents)? We object to this.

Mr. Alioto: We will offer into evidence the document that I have just received from—that I have just handed to Mr. Holland for his inspection—being documents dated June 26, 1940, and September 12, 1939.

Mr. Holland: To which we have no objection, your Honor.

The Court: Very well.

The Clerk: Plaintiffs' 56 admitted and filed into evidence.

(Memo, September 12, 1939, from Frederick F. Kett to Robert Sterling, received into evidence and marked Plaintiffs' Exhibit No. 56.)

[See Book of Exhibits.]

Mr. Alioto: Now, this document, if your Honor please, the Vanadium Corporation of America, en-

(Testimony of Blair Burwell.)

titled "Vanadium Bearing Raw Material," is a breakdown of Peruvian ore and its uses and certain processes concerning it for the years '35 to [302] '39, so that there are two years in the scope of your Honor's ruling and three years out of it, but it is one document, and I don't know how it can be segregated, but I think if your Honor looks at the nature of the document that it will——

Mr. Holland: We object to anything prior to '38. If you want to confine this case to '38 on—because that is a summary of what happened from '35 to '40.

Mr. Alioto: To '40. See, it includes some years in and some years are out, but it is a summary about uses, if your Honor please, and statistics——

Mr. Holland: Statistics for those years that your Honor has ruled are not material to this case.

The Court: Well, it may be admitted, but excluded therefrom will be all reference to prior to 1938.

Mr. Alioto: All right.

The Clerk: Plaintiffs' Exhibit 57 admitted and filed into evidence.

(Document "Vanadium Bearing Raw Materials" 1935-1939, received in evidence and marked Plaintiffs' Exhibit No. 57.)

Mr. Alioto: (Following comment between counsel outside of hearing of reporter) I think perhaps we can agree on a process of doing that, Mr. Holland. I don't see any difficulty on that.

I take it that my concluding the direct exami-

(Testimony of Blair Burwell.)

nation is subject to my right to make the offer of proof? [303]

The Court: You may recall this witness for other purposes. Very well.

Cross-Examination

Q. (By Mr. Archer): Mr. Burwell, I believe that it is your testimony that in 1938 at Uravan the United States Vanadium Corporation had approximately $1,250,000 invested in fixed assets in the vanadium oxide plant, is that not correct?

A. I think that's approximate.

Q. And approximately $1,400,000 invested in mines and development work at that time?

A. No. I think the entire investment in mines and plants was somewhere between one million, $1,400,000.

Q. $1,400,000 for mines—— A. And——

Q. ——and the equipment?

A. They were not segregated.

Q. How many tons a day was the Uravan plant capable of producing in 1938?

A. Approximately 250 tons a day.

Q. What in your opinion was the most economical size of a plant for producing vanadium oxide in 1938 and 1939?

A. The most economical size would be the largest possible mill you could build, maybe a thousand, two thousand tons a day, as now exists, Mr. Archer.

Q. That's right. Now—and then you would reach

(Testimony of Blair Burwell.)

a point on the lower side below which a plant would be uneconomical, is that correct?

A. No, that is not technically correct because you might have a very rich ore and you could use a very inexpensive plant and you come out with the same end cost.

You might have a very poor ore and require a very expensive plant to come out with the same cost.

So the relevancy there is the kind of ore that you had to treat. For instance, as Mr. Holland brought out, the early V.C.A. plant treated ore running about 20 per cent vanadium. The early investment was significant, 20, 25 thousand dollars. But when the ore became weaker and the high-grade ore was gone, then many hundreds and hundreds of thousands of dollars had to be put to get a same end result on the cost.

Maybe I am over-belaboring this point, but it is not a fixed thing, Mr. Archer. It is dependent upon the richness of the ore.

Q. Well, speaking of a sustained operation from 1938 to, say, 1946, sometimes you had richer ores and sometimes you had poorer ores, is that not correct?

A. Some mines and some mining districts had a proportion of richer ore. Some mines had a proportion of leaner ore. Therefore, the early mines were very small and they worked on very rich ore and they came out with the same cost, the same numbers. [305]

(Testimony of Blair Burwell.)

Q. And when the ore was exhausted, they would no longer be economical, would they?

A. When the higher grade ore would begin to be exhausted, then more and more investments were put in for larger plants, more efficient plants, to make up the deficiency in the richness of the ore. So, it is not a fixed thing, it is a continually moving thing.

Q. In about 1938, from '38 to '44, your ore averaged about two per cent vanadium oxide, is that not correct? A. I think——

Mr. Alioto: The entire area or restricting that——

Mr. Archer: I am talking about Uravan.

A. The ore varied between three and three and a half per cent and one per cent, and an average of about 1.8.

Q. 1.8 per cent. Now, what kind of a system did you use for making vanadium oxide out of the vanadium ore, in 1938 to 1946?

A. We used a salt roasting process where the ore was mixed with salt and heated at red heat, and the vanadium was then made soluble by the action of the salt and the heat and separated from its worthless gang and the uranium, and then recovered by other methods from there on.

Q. But this method alone would not produce any uranium oxide, would it? [306]

A. It would, if the leaching solutions were alkaline, had sodium carbonate in it, which was a method used by the Vanadium Corporation later.

(Testimony of Blair Burwell.)

Q. Would it require additional work to make a uranium oxide plant to produce uranium oxide from the same plant?

A. Well, yes. Although the vanadium extract plants could be partially modified so that in the process of extracting the vanadium in the solutions, in the water, you would also extract a portion of the uranium in the water. That water then is separated and the uranium and vanadium, but that, of course, requires an additional plant that you—an auxiliary plant to recover a portion of it. That was used by the Vanadium Corporation of America but not by the U. S. Vanadium Corporation.

Q. At the time when uranium then became valuable and you were processing the carnotite and roscoelite ores, but particularly the carnotite ores, the economical plant then would be required to process both vanadium oxide and uranium oxide, is that not correct?

A. Why, of course an economical plant is required for anything you do, Mr. Archer.

Q. Well, that is what I mean, but you couldn't just buy the ore and process vanadium oxide and compete with a plant which from the same ore was processing both vanadium oxide and uranium oxide, could you? [307]

A. You're in a technical question, would you please repeat that so I could give you the accurate answer?

(Question read by the reporter.)

(Testimony of Blair Burwell.)

A. Yes, you could.

Q. (By Mr. Archer): Would you explain how you would do that?

A. Yes, you might have a very rich ore; you could be processing for vanadium and you could compete with another plant that was processing both vanadium and uranium of higher grades. It's a matter of relevancy as to the ore supply. The key in all of this, Mr. Archer, is the richness of the ore supply and the processing plant is simply something that is fitted to the economic problem of the ore. The ore controls. Therefore, you can't say that the tail wags the dog or the plant controls the industry. The ore controls the industry.

Do I make myself clear?

Q. Yes. So that it would depend upon the kind of ore. But if both plants were operating from the same kind of ore, the plant which was processing both vanadium and uranium would be a more economical plant, would it not?

A. If there were the same grade, the same richness, the same impurities and the same costs of ore, you would be correct. But never did those same duplication factors arise. They don't exist.

Q. In your testimony this morning you referred to the [308] Mesa Vanadium Mill down at Disappointment Creek, did you not?

A. That's right.

Q. You couldn't recall the lawyer's name who was in on that with Mr. Claybaugh, but his name was Charles Holmes, was it not?

(Testimony of Blair Burwell.)

A. That's right.

Q. He is still living now in Grand Junction, Colorado? A. I believe he is, yes.

Q. Now, this vanadium mill that you were talking about, could fit in this room, could it not, it could fit in about half of this room? A. No.

Q. How much bigger?

A. Well, I think there were two or three acres where they received the ore, had scales, they had outside tanks, they had a little pan, they had a coal pile. I have been there many a time, Mr. Archer, and I don't think you could——

Q. I realize the land—but I am talking about this roaster where they made the vanadium oxide.

A. Well, the roaster that they made the vanadium oxide probably would go between this wall and over to where the partition is.

Q. In your knowledge you had acquired of the Loma mill, which was operated by Messrs. Morrison and Ackerman, did you acquire knowledge of the litigation between Morrison and Ackerman?

A. Well, no. I heard that there was some litigation but I didn't inquire about that. I didn't know anything about it.

Q. You didn't know the basis of that litigation.

I believe that it is your testimony that in 1938 and 1939 it was your opinion that the price of ferro-vanadium should have been reduced to $2.25 per pound?

A. That's correct, Mr. Archer.

Q. This is what you testified to yesterday; on

(Testimony of Blair Burwell.)

Monday you testified, at this time, that it was $2.50, and at that time you were speaking of prices of $2.90 to $3.10? A. That's correct.

Q. And you found out overnight that the prices were $2.70 to $2.80 and $2.90. And so now it is your testimony now it should be $2.25?

Mr. Alioto: I believe the record speaks for itself. There is no reason to make an argumentative summary of the record.

The Court: This is cross-examination. Proceed.

Q. (By Mr. Archer): What I am getting at, all I want to say, Mr. Burwell, that when the prices came down from the $3.00 prices to the $2.70, 2.80, 2.90, you revised your opinion from $2.50 to $2.25, isn't that correct?

A. No, I think the record of my previous statements in this regard were based upon $2.25 vanadium—the price of [310] ferro-vanadium varied from $2.50 or $2.60 and later on I think to $3.10, but you must recall this is a little while ago.

Q. That is what I am getting at.

A. And, however, I can tell you the arithmetic that governed this, which was regardless of the price, end price at the moment. You see, Mr. Archer, it takes two pounds of the oxygen and the vanadium together to make one pound of the metal, allowing for losses, and so the metallurgists, myself, use a convenient kitchen arithmetic. We just take the price of the oxide, the vanadium oxide, and multiply it by two. That means if it cost 40 cents to make the red cake, the fused oxide, multi-

(Testimony of Blair Burwell.)

plied by two, the vanadium metal or the vanadium, that is, will cost 80 cents, and that we knew that the ordinary cost of reducing it to the ferro vanadium by taking one pound of aluminum per pound of vanadium, which is 25 or 30 cents, and the labor, which was 10 or 15 cents, amounts to 50 cents.

So conveniently you could add to the 80 cents of vanadium your cost, 50 cents, which I believe is $1.30 a pound of vanadium metal in the product that you are going to seek a market for.

Now, of course, you must have a profit on that. You must pay your sales costs. But the profit and your sales costs must be tailored to the needs of the customer.

Therefore, between $1.30 and $2.60, or $3.10 or [311] whatever it is—isn't particularly relevant—as long as you know that you can produce it at a price well under $3.00 or $2.60. Therefore, if the price of vanadium was $2.60, you would have $1.30 a pound of vanadium metal to pay the ferro alloy plant, to pay the profits to the mine, the miners.

Now, you could divide that any way you want, but it isn't relevant in this position to go to the end price. The relevancy is what it cost you to produce and how much you could afford to charge the customer for your profits. Now, that is a matter of your sales. You must understand what I mean.

Q. I may have misunderstood your testimony but, as I understand your testimony it was in 1938

(Testimony of Blair Burwell.)

that by reducing the price of vanadium, ferro-vanadium, to $2.25, you would enable it to compete with molybdenum in what we call engineering or constructural alloy steels.

A. Exactly so.

Q. Now, one of the functions of ferro-vanadium in constructional alloy or engineering steels is also to control grain size, is that not correct?

A. Now, Mr. Archer, it does a dozen things.

Q. I am just asking the one.

A. It controls grain size, as one of the functions. You are correct.

Q. Now, in 1938 and '39 what was molybdenum selling for? [312]

A. In what form, Mr. Archer? There are a number of forms of molybdenum.

Q. In the form in which it was used in constructional alloy steel by the steel makers.

A. Well, you have to—there is—it's sold as ferro-molybdenum; it's sold as calcium molybdate, and it is sold as molybdic oxide.

Q. What was ferro-molybdenum selling for?

A. Well, I don't recall offhand. You will have to excuse me for not being a walking statistician, but I believe the price of ferro-molybdenum and ferro—ferro-molybdenum was somewhere around one fifty, one seventy-five a pound of molybdenum contained.

Q. Did ferro-vanadium in the period commencing 1938 also meet some competition from alumi-

(Testimony of Blair Burwell.)

num in constructional engineering and alloy steels in controlling grain size?

A. Only to the limited extent as concerns one of the qualities of vanadium. That was grain size. But, of course, that was only one of about twelve other qualities that was involved in it.

Q. And what was aluminum selling for in 1938-39?

A. I think around 25 cents a pound, somewhere in there.

Q. Mr. Burwell, referring to this chart which has been marked Plaintiffs' Exhibit 27, and these corporations, you were only an officer of the United States Vanadium Corporation, [313] isn't that correct? I mean—I don't say "only an officer." I don't mean it that way, Mr. Burwell. I mean that of these corporations, the only one of which you were an officer was the United States Vanadium Corporation?

A. In this period of time to 1947?

Q. 1939 to 1946.

A. No, I was also an officer of the Union Mines Development Company.

Q. Union Mines Development Company, which is not on this chart, is it?

A. No, it is not on this chart.

Q. No.

A. But it was a Union Carbide and Carbon Corporation company.

Q. That's correct.

(Testimony of Blair Burwell.)

A. The fact that it wasn't on the chart isn't particularly relevant.

Q. No, not at this point, at any rate.

But you weren't an officer of Electromet Sales or Electromet of Canada? A. No.

Q. You weren't an officer of the parent company? A. No.

Q. You became an officer of United States Vanadium Corporation in 1944, you became a vice-president when Mr. Van Fleet became president, isn't that correct? [314]

A. Somewhere around that time. The record speaks for itself.

Q. Now, prior to 1944 who had been the president or who had been the president of the United States Vanadium Corporation, between 1938 and 1944?

A. I think the record would state. My recollection is that Mr. Haggerson was president at the time, Mr. Fred Haggerson.

Q. Now, neither Mr. Haggerson nor Mr. Van Fleet is living at the present time, are they?

A. Unfortunately, no.

Q. What was your position in the Union Mines?

A. Union Mines Development Company?

Q. Union Mines Development Company. Is it company or corporation? I'm not sure which. Whichever it is.

A. I believe I was a director and a vice-president.

Q. And who was the president, Mr. Van Fleet?

(Testimony of Blair Burwell.)

A. Mr. Van Fleet.

Q. Mr. Burwell, I hand you—I want to refer to these exhibits, they are Plaintiffs' Exhibits 33 and 34. These are the exhibits. The first one, Exhibit 34—I guess we will take 33, it is the earliest—. That is from Mr. Van Fleet to Mr. Burwell, September 14, 1938, regarding outside vanadium ore production. And Exhibit 34 is dated just five days later, from Mr. Van Fleet to Mr. Gormely, copies [315] to Mr. Swain and Mr. Sneath regarding competitive vanadium ore production.

A. That's correct.

Q. And I believe you testified that—you said that these were your instructions about acquiring competitive ore and claims.

A. Yes, that's right.

Q. Now, referring first to Exhibit 33. If you will notice in the third paragraph it states:

"In this respect I have had some correspondence with King * * *"

King was Mr. Haldane, who was under you.

"* * * about the application made by Balsley and Kipe for a freight rate on vanadium ore to Castletown, New York, where it is claimed the ore will be reduced. We cannot get any line on this plant here and at Castletown there is no plant now available for this kind of work."

Well, Balsley and Kipe were not members of the United States Vanadium or employees of Union Carbide, were they?

A. No, they were independent miners.

(Testimony of Blair Burwell.)

Q. And what about this plant at Castletown, did you know anything about it in 1938?

A. I don't remember at this time. I don't recall anything about Castletown. [316]

Q. You don't recall anything right now?

A. No.

Q. Do you recall that they refined flue dust there and made vanadium oxide, does that refresh your recollection? A. At Castletown?

Q. At Castletown.

A. No, I just don't recall, Mr. Archer.

Q. So in your investigations of your competitors, you do not recall investigating the Castletown Manufacturing Company, do you?

A. No. That was in the East, Mr. Archer.

Q. I see. Now, refer to Exhibit 34, Mr. Burwell, which——

The Court: Just a minute. We will take a few minutes' recess.

(Short recess taken.) [317]

Mr. Archer: Shall I proceed, your Honor?

The Court: Very well.

Q. (By Mr. Archer): What happened to Exhibits 33 and 34, Mr. Burwell?

A. They are right here, Mr. Archer.

Q. I show you now Plaintiffs' Exhibit 34, Mr. Burwell. This is a letter dated September 19, 1938, from Mr. Van Fleet to Mr. Gormely, which makes reference to competitive vanadium ore production, does it not? A. That is right.

Q. You have already testified that you did not

(Testimony of Blair Burwell.)

purchase the output of the Vitro Manufacturing Company, isn't that correct? That is the first one referred to.

A. I don't recall the testimony, Mr. Archer, about purchasing the Vitro Manufacturing output. I don't recall that.

Q. Do you recall whether you did or did not purchase it?

A. Do you mean the output of fused vanadium oxide?

Q. That is right, from Vitro.

A. No, I don't think we purchased it, to the best of my knowledge.

Q. Subsequently, during the war period, do you recall that they processed an Otavi ore for the Metals Reserve Company, or did you have anything to do with that?

A. I think they did. I just knew of that casually, and not of my own direct knowledge. [318]

Q. The next two companies are the Shattuck Chemical Company and the North Continent Mining Company. That is really the same company, isn't it? I think it is on the second page of the exhibit.

A. Well, yes and no. The North Continent Mining Company was separate from the Shattuck Chemical Company. They delivered ore to the Shattuck Chemical Company for awhile, and then later there was some separation of the companies. I don't remember.

(Testimony of Blair Burwell.)

Q. North Continent had its own oxide plant after that, isn't that correct?

A. I think that is true. I think they started the North Continent Mining Company mining richer ore and shipping it to the Shattuck Chemical Company, and then later on they built their own plant at Slick Rock.

Q. You did not buy their production of vanadium oxide, did you?

A. No, we bought their production of ore.

Q. The Metals Reserve Company?

A. I believe—I am not too clear on it, but I believe U. S. Vanadium bought some of their ore directly.

Q. Yes, I think they did, but most of the ore that was bought from North Continent was bought for Metals Reserve, particularly prior to 1944?

A. I don't remember the proportion, Mr. Archer. I think [319] we bought twenty-five, twenty-eight hundred tons of high-grade ore from North Continent for U. S. Vanadium Corporation.

Now, there was additional ore purchased for the Metals Reserve about the same time, and then following that we purchased the ore for U. S. Vanadium Corporation at Durango.

Q. Then the next company on here is the Mammoth mine in Arizona, which was associated with the Molybdenum Corporation of America, is that not correct?

A. Well, it just says "Miscellaneous," Mr. Archer.

(Testimony of Blair Burwell.)

Q. I think you have to turn to page 2. They have it underlined, or Mr. Van Fleet has it underscored in the letter.

A. Yes. What is your question about it?

Q. The production from the Mammoth mine went to the Molybdenum Corporation of America, is that not correct?

A. I don't know that that is correct.

Q. You do not know one way or the other, is that right?

A. The vanadium in the ore concentrates produced I do not believe went to Molybdenum Corporation.

Q. Or did it go to Vitro?

A. I believe it went to Vitro, and it is possible that the molybdenum, after separation, went to the Molybdenum Corporation.

Q. I think my recollection fails me. I believe you did testify it went to Vitro, Mr. Burwell.

A. I am not sure, but I think that is the case, Mr. Archer. [320]

Q. If you will turn to page 3, we come to the Anaconda Copper Company. A. Yes, sir.

Q. You will notice in the second paragraph there on page 3 Mr. Van Fleet states:

"They expected to be producing vanadium this year after installing equipment costing about $200,000, but they did not feel inclined to proceed with this expenditure this year. I imagine when business is better they will begin producing fused oxide. It is estimated that this plant will produce ap-

(Testimony of Blair Burwell.)

proximately 100,000 pounds of V_2O_5 yearly, and we have agreed to purchase the output."

Do you recall testifying yesterday, when Mr. Alioto asked you about this, that in September, 1938, you had a large inventory of vanadium oxide? Do you recall that?

A. That is correct.

Q. You did not mean to imply in your testimony yesterday, though, that you had purchased the Anaconda Copper Company's output in 1938, did you?

A. Well, I believe we purchased it in 1939. I am not sure when we started purchasing, but I remember that Anaconda was beginning to produce in 1938, and I was at their plant at Anaconda at that time and went into the question of design [321] with Mr. Frick, their chief metallurgist, and instead of producing fused oxide, which would involve an expensive plant, we assisted—I and our engineers—in making a plant to produce just red cake.

Q. That is the red cake (indicating)?

A. That is right.

Q. The intermediate?

A. And we proceeded to move the red cake to Rifle, or to wherever we desired to convert it——

Q. You moved it to Rifle——

Mr. Alioto: Wait a minute.

I do not think he should interrupt the witness in the middle of a sentence.

(Testimony of Blair Burwell.)

Mr. Archer: I beg your pardon.

I think the answer has gone away beyond my question, but you can finish your answer. Go ahead.

The Witness: Would you review your question?

Q. (By Mr. Archer): I was just asking whether or not you bought their production in 1938.

A. But I don't recall as to when we began to buy the production.

Q. Now, my second question is: They never produced fused oxide, did they?

A. They produced red cake. [322]

Q. (By the Court): What?

A. They produced red cake.

Q. (By Mr. Archer): That is the intermediate product?

A. That is right. Because it cost a great deal of money to make the fused oxide from the red cake.

Q. And the red cake was processed, as you started to say, at Rifle, wasn't it?

A. That is right.

Q. And when did Rifle go into operation, Mr. Burwell? A. I believe 1940 or 1941.

Q. 1941, wasn't it?

A. I am not sure. But we processed red cake, or received red cake, at other plants, too, before that. You see, we processed red cake at Uravan. I am not sure whether this went prior to that to Uravan, or whether it went to Niagara Falls. We were using red cake for manufacturing ammonium meta vanadate, another salt, and I believe we used

(Testimony of Blair Burwell.)

the dry red cake for other purposes than making fused oxide. So the record as to where we used the red cake from Anaconda, we used it for two things: We used it for making fused oxide, and we also used it for making ammonium meta vanadate, a catalyst in which red cake is ideally suited. That manufacture amounted to 100,000 pounds a year, and was carried on at either Niagara Falls or the old [323] Rifle plant which was rebuilt in 1941. You see, a Rifle plant was actually built in 1926, so we still had a plant site and equipment there part of the time.

Q. But it was not operating?

A. No, it was not operating. That is the roasting plant. We also had at Uravan a plant for making vanadate, and I do not recall the details of where all this went at that time.

Q. I was trying to establish the date when you purchased it, Mr. Burwell.

Mr. Alioto: Exhibit 14 shows the date, Mr. Archer, if you want to use it.

A. That is in the record, I believe, as to the date they purchased it, and I wouldn't trust my memory at this time.

Q. (By Mr. Archer): Referring to Exhibit 34, Mr. Burwell, the one that you have in your hand, the next competitive ore produced, or referred to, is the International Vanadium Corporation, a lead vanadate property at Dripping Springs. This operation failed because it was uneconomical, was it not, Mr. Burwell?

(Testimony of Blair Burwell.)

A. That is what Mr. Van Fleet says. I did not have any direct knowledge of this operation.

Q. In regard to the Gateway Alloys plant, which you showed to the jury here at Gateway, the Gateway mill was originally run by Brown and Bowman, was it not? It was built by Harry Brown, Jr.?

A. It was built by Harry Brown, Jr., and operated by Harry Brown. Mr. Bowman was a banker.

Q. Mr. Bowman was a banker. And they mined the Calamity claims, and the Outlaw, and the Maverick claims, did they not—what we refer to as those claims? A. That is right.

Q. And those claims were owned by the Molybdenum Corporation of America, were they not?

A. That is right.

Q. And Harry Brown and Mr. Bowman contracted to purchase those claims from the Molybdenum Corporation, did they not?

A. I think that is right.

Q. And they started their operation at Gateway? A. Yes.

Q. The question I wanted to ask was, I believe you testified yesterday that U.S.V., United Vanadium, your company, mined those claims in 1939, and that the Gateway Alloys plant failed in 1940. I want to suggest now, wasn't it just the reverse? Didn't they operate in 1939 and come to you in the spring of 1940 and ask for some assistance?

A. Well, now, the dates and sequence are approximate. I think in my testimony I qualified that.

(Testimony of Blair Burwell.)

You have to be a bit merciful. This has been a long time ago.

Q. I understand completely.

A. But I think it might have been one way or the other. [325] The sequence was approximately as you stated.

Q. That is right. So in 1939 this was a period of foreign sales of vanadium oxide they were operating? In other words, the foreign countries were tooling up, and we had not gotten into the war production as strongly as we got into it later on. That is correct, isn't it?

A. Yes. I didn't know where their sales went.

Q. Oh, you didn't know?

A. In fact, they didn't make very many sales, Mr. Archer.

Q. In the spring of 1940 you do recall that the administration in Washington began to curtail foreign shipments of vanadium oxide, and finally put an embargo on them completely in July of 1940, do you not?

A. I don't know that of my own knowledge. I think that is a matter of record. If you state that is the case, that is probably it.

Q. When Harry Brown came to you in regard to mining the Calamity and Outlaw claims, didn't he tell you that he was behind on his payments to the Molybdenum Corporation of America, and ask you to take over the lease for a year and make the payments, to see how they could go—say that the claims would stay in his control?

(Testimony of Blair Burwell.)

A. Yes, that is right.

Q. And so then you mined for a year, until 1941, and you turned it back? [326]

A. That is right.

Q. And it was subsequent to that time that Mr. Nisely started to mine the claims and to operate the Gateway mill, isn't that right?

A. That is correct.

Q. Now, if you will look at the map there of Gateway around the Calamity and the Outlaw claims, there are many—the Maverick claim—there are many other vanadium ore resources up there in addition to those claims which the United States Vanadium Corporation mined, are there not, and they were there from 1938 to 1946?

A. Well, you are asking me a question about other vanadium claims. Will you tell me which vanadium claims you are referring to?

Q. There are many others. There is the Arrowhead group, is there not?

A. Arrowhead was not developed and known to contain any ore at that time.

Q. But it was developed subsequently to that time?

A. But it had no ore. It was not known to be a mining claim. There was even a question of title on the Arrowhead claim at that time, because there was no ore, just a scratch in the sage brush, and there wasn't anything showing.

Q. You mean you had not discovered the ore there?

(Testimony of Blair Burwell.)

A. Yes. But you asked me—— [327]

Q. I will withdraw——

A. If there are claims known to be vanadium-bearing and having vanadium.

Q. I think I said known claims. I do not mean known claims. I am saying that there were vanadium resources there, known or unknown, discovered or undiscovered, in addition to the Calamity, Outlaw, and Maverick claims, in 1938?

A. I can't testify as unknown and undiscovered claims and answer your question in this court, Mr. Archer.

Q. I am not asking you whether you knew about them then.

A. Would you repeat your question?

Mr. Alioto: He is asking him what he knows now as compared with what he knew then. As long as we are speaking about the time——

Mr. Archer: My purpose is to show that in the area of the Gateway mills there is, and has been throughout this entire period, a large supply of vanadium ore.

Mr. Alioto: Your question includes undiscovered.

The Court: You can ask him that question.

The Witness: You see, what you are trying to ask me, Mr. Archer,—and I will try to answer it—to a certain extent I see your point. Surely the area up on these mesas contained vanadium-bearing formations. Its potential was quite extensive. Later I made an appraisal of this area. This ore was tributary to the Gateway mill. And I believe my

(Testimony of Blair Burwell.)

later appraisal, to give you pretty close figures, which I made for the Department of Justice in the Union land case, was a hundred and sixty some thousand tons of vanadium ore and five or six million pounds of vanadium oxide. But, Mr. Archer, the ore that was contained in those areas is under deep burial and could not be mined competitively at that time.

Now, the ore that Harry Brown was mining, and the immediate ore that could be mined to make the plant work, was the ore that was laying close to the surface and in pits, that any man with a shovel and a strong back could walk up there, load it into a truck and take it away. There was probably fifteen or twenty thousand tons of cheap available ore just lying right on the surface in the Calamity properties that Mr. Brown was trying to operate.

Back of those claims, under the Arrowhead and under deeper cover—and they are still mining them—there was other ore, but it would cost a great deal more, and you couldn't get into that property unless you started in through the edge of the rim.

So all we did to help Mr. Brown out and offer to take care of the situation in controlling the district, which were my instructions and which I carried out, was to take all of the surface ore that was available that could be economically taken down to the Gateway plant, and to do that—you apparently know something about that region—we built a road, not [329] down to Gateway; we built a road up the other side, that went down to Mesa Creek, with

(Testimony of Blair Burwell.)

bulldozers and graders, which was of no use to the Gateway plant, but over that road we cleaned up all the surface available ores on the claims that bordered the top of the mesa, so when we were through we had all the available cheap ore that could possibly be used to implement a small plant.

Now, later on, when you get into a different phase, where the high-, rich-grade ore is exhausted, then you can go into deeper digging and more venture, and then the thing becomes economic under a new pattern. That is what exists today. That region today is producing about $15,000,000 worth of uranium and vanadium.

Q. But it takes a lot of money to develop it, doesn't it?

A. It takes a progressive amount of money. I mean, you start with a high-grade ore on the surface and maybe a little plant, and then, again, the development of these things is a progressive one. After you have the ore that runs two or three percent of vanadium on the surface that can be mined for $1.50 or $2.00 a ton, and hauled to the plant for maybe three or four dollars more, after that you have to begin looking for the stuff in deeper areas. That cheaper ore can go into a pot-sized plant, and maybe you can make some money on it if you have a plant and the cheap, rich ore on the surface. But later on, as you exhaust that area, then it comes to the [330] question of rolling up your sleeves and putting in a million-dollar plant. And, as a matter of fact, that is just exactly what happened later

(Testimony of Blair Burwell.)

on in that particular area. But the control of the whole thing is the available ore on the surface.

Q. At the time you made the agreement with Harry Brown and Mr. Bowman to mine these claims for a year you considered that it was a favorable purchase of ore for the United States Vanadium Company, did you not?

A. Assuredly, or we would not have done so.

Q. Regardless of whether you were keeping it out of competition?

A. Regardless of what we did, we did it for the good of the policy of the company.

Q. It was an economical thing so far as the ore was concerned, wasn't it?

A. The policy of the company had two phases: One was the economies of the moment, and the other was the projected economies of the future. We were always doing something. We might mine ore that cost us more money than it was worth at the moment, to start an operation, because five years from then we knew the ore would become valuable. This is the strategy of all mineral deposits. [331]

Q. In other words, there were good, sound business and engineering reasons for mining those ores at that time?

A. Of course good, sound engineering and business reasons, and reasons for the future. Even then you were looking at uranium from that far, that was one of the richest uranium areas in all the early days. And in '39 we had already had the knowledge that there was going to be something for

(Testimony of Blair Burwell.)

uranium because it was 1939 when the first breakthrough on uranium occurred in Germany. If you will look at your records.

Q. Now, you also testified yesterday in regard to Dry Valley in the Monticello area, you recall that? A. Yes, I recall testifying.

Q. Are they on this map?

A. I think I pointed that out to the Jury, Mr. Archer; I believe it was over across the state line into Utah, about where my finger is pointing, and I think maybe 75-80 miles from Uravan and this other operation in Colorado.

Q. Now, the Dry Valley claims were also originally owned by the Molybdenum Corporation of America, were they not, or a part of them, the ones you were referring to yesterday?

A. They were owned by many, many people in the course of their ownership.

Q. Let's say——

A. About that time you're——

Q. ——in 1938, Molybdenum Corporation had it? [332]

A. They acquired it from Floyd Ackerman.

Q. And then the next person who acquired them was Leverett Davis from Salt Lake City, Vanadium Products Corporation?

A. That may be the case. The record speaks for itself. I think he did—there was a man who was trying to make an operation over there. I believe that's the name.

Q. He had some tie-up with this fellow Balsley

(Testimony of Blair Burwell.)

that we have referred to, the independent operator, did he not?

A. I don't recall, but that could easily be.

Q. Well, don't you recall, however, that you and Mr. Van Fleet bought these claims, some claims, in Dry Valley? A. We acquired them, yes.

Q. Well, didn't you acquire them from Mr. Balsley and from Leverett Davis?

A. We acquired them from whoever had the title at the moment. But the underlying ownership, just like over in Gateway, rested with the Molybdenum Corporation, and—whatever the record is, Mr. Archer. I believe you—you probably are correct, that Mr. Balsley—I believe I discussed it with Mr. Balsley, and now that you refresh—our engineer, Mr. Emigh, investigated the properties when they were held by Mr. Balsley under a leasing arrangement, much the same as the other side of the state line.

Q. And Mr. Emigh, his name is spelled E-m-i-g-h, is that right? [333]

A. That's right. He was one of our mining engineers in U. S. Vanadium Corporation. Now with Monsanto.

Q. And he was one of the New York employees who was in charge of the metal reserve program, wasn't he? A. No, he wasn't, no.

Q. Wasn't he under you in regard to that?

A. No. Mr. Emigh was working under me at that time or delegated to our operation at Uravan.

(Testimony of Blair Burwell.)

Q. Oh, at that time. I guess I was too early. But——

A. Later on he did some work. I mean, the task of those engineers was shifted from one to the other. There was really no dividing line as to their work or their responsibility.

Q. Well, to go back to this time when you acquired the Dry Valley claims from Leverett Davis and Mr. Balsley, you recall that Balsley and Leverett Davis came to a disagreement and that Balsley came in to see you and said that Leverett Davis had gone east to see Vanadium Corporation?

A. You say so. I don't know.

Q. I wonder if you recall it.

A. I don't recall it.

Q. I show you a copy of a telegram from Blair Burwell to J. R. Van Fleet dated March 10, 1941, and ask if that refreshes your recollection—if you can identify the telegram and whether it refreshes your recollection as to the occasion when you acquired the Dry Valley claims? [334]

A. (Witness examining) Yes. I think this does, does state something along that connection with relationship to your question. I just can't at the moment identify—let me read this again (witness examining). I can't get the date on this, Mr. Archer.

Q. Let me see if I can help you.

A. (Witness examining.)

Q. It looks—it says 1941—— A. 1941.

Q. And then March the 10th.

(Testimony of Blair Burwell.)

A. (Witness examining his briefcase) Excuse me. Let me just check something here. (Examining documents) I believe in 1938 we have a record of an examination of that property by Mr. G. Donald Emigh, and I have a file number in the Carbide files of that examination, which was at Mr. Balsley's—that Mr. Balsley was named as the man that he saw.

Now, if I could—don't fumble around too much, I could find that reference.

Q. (By Mr. Archer): I'm thinking of the time when United States Vanadium Corporation took over these claims.

A. Well, the date on that, I am confused. The date looks different from the telegram.

Mr. Alioto: That is March 10, 1941?

Mr. Archer: March 10, 1941.

A. Whatever the record is. If that is the record, that's it. [335]

Mr. Archer: Could I have this letter marked in evidence, this telegram?

Mr. Alioto: We have no objection.

The Clerk: Defendant's U, Exhibit A, admitted and filed in evidence.

(Whereupon, telegram dated March 10, 1941, Burwell to Van Fleet, was received in evidence and marked Defendant U's Exhibit A.)

Mr. Archer: I want to read part of this, your Honor.

It is from Blair Burwell to J. R. Van Fleet, dated March 10, 1941:

(Testimony of Blair Burwell.)

"Balsley Telephones Wants to Know if We Are Interested Dry Valley Stop Apparently Balsley Is In Disagreement With Davis Who Is In East Promoting Something Stop Will See Balsley Tomorrow and Advise You of Situation Stop"

Then, the rest is about railroad fares.

The Witness: Why don't you read the rest?

Mr. Archer: Has that something to do with it?

The Witness: It's pertinent.

Mr. Alioto: Yes, it certainly does. Read the last three lines—"This Plan Looks Increasingly Interesting"——

Mr. Archer: It says: [336]

"Railroad Will Establish Tariff On Ore If Requested Thompsons to Rifle Two Twenty Five Proportional From Cisco and Green River Stop This Plan Looks Increasingly Interesting Will Have Dickson Estimate For You On Rebuilding Roaster Leaving For Grand Junction Tonight."

Does that refer to Rifle or Dry Valley?

A. That refers to the Monticello plant, the whole Dry Valley situation that I was testifying here that resulted in so much acrimonious debate in the previous trial. It is very pertinent because, you see, this freight rate was being set up because after we had been denied the opportunity to build a plant at Monticello and use—in that area, because the water had been taken away from us by——

Q. By Mr. Holland's clients over there?

A. Why, we switched immediately—why, we switched immediately to double the capacity at Rifle

(Testimony of Blair Burwell.)

and move about 20,000 tons of stockpile ore that we had stockpiled in Monticello to Rifle, and at this time it was being done in a big jump to prevent Mr. Haggerson coming in and ruling that he be given that ore. That was the request, that we not only give the ore pile to Mr. Haggerson—to Mr. Bransome of the Vanadium Corporation of America—we were fighting this situation and that was an emergency freight rate which was set in operation in 48 hours to move ore into Rifle plant instead of [337] moving it into Monticello. So that there is a lot of story behind that telegram.

Q. That's right. Then it says——

A. A part of the conflict between these two companies, Mr. Archer.

Mr. Alioto: Which two companies?

Mr. Archer: Between which two companies?

A. The Vanadium Corporation of America and U. S. Vanadium Corporation.

Q. They were successful, though, in getting the plant at Monticello, were they not?

A. Yes, they had a little more success on the top side than we did.

Q. Mr. Burwell, you have testified here about various ore prices and how they were set. Do you recall in September, 1944, asking Mr. Robison to make a survey of the ore prices which had been used by United States Vanadium prior to that time?

A. Well, I probably did, if it is a matter of record.

Q. I show you what has been marked Plaintiff's

(Testimony of Blair Burwell.)

Exhibit 11. Part of this is V.C.A. exhibits which don't—I hope don't concern you. Here's your letter and here's the reply. They are already in evidence.

A. (Witness examining) Yes. Now, what is your question regarding this?

Q. The following letter is the reply—not the following, [338] those are the V.C.A.—. The first letter—these are somehow mixed up here, but this is his reply to your request for a survey of the ore prices.

A. (Witness examining) Yes, I think this letter—I know the people. Of course it was written.

The Court: What is your question?

Mr. Archer: I wonder if he could identify those letters. A. I just have.

Q. Is his reply correct as to the ore prices paid and how they were set by United States Vanadium?

A. At this moment I can't state if it is correct. It may be, but—I know the people. Now, Mr. Jack Robison—. What is the date of that letter?

Q. September, 1944.

A. Mr. Robison was general superintendent at that time. But he entered the employment of the company, I think, about 1940-'41.

Q. But you asked him to check with Joe Weston?

A. I asked him to check with Joe Weston. Now, maybe those figures are right, I don't recall.

Q. Well——

A. I presume that they are. I presume that they are.

(Testimony of Blair Burwell.)

Q. Wasn't this report to you made by your inferiors? A. That's right. [339]

Q. You didn't object to it, did you?

A. Well, I don't believe so. It would be——

Mr. Archer: Your Honor, I should like to read these two letters, if I may.

The Court: Very well.

Mr. Archer: The first is a letter dated September 14, 1944, from Blair Burwell to J. L. Robison, copies to W. G. Haldane—we have identified—and J. E. Weston.

"Dear Jack:

"We have recently been asked for a review of ore prices and ore buying arrangements since 1926 in Colorado."

We don't go back that far in the answer, though, your Honor.

"I wish you and Joe Weston would go over this and give me a summary of our past procedure in this connection. Joe can probably supply a great deal of information from his memory as to Uravan ore purchases beginning in 1936.

"It would be of value to make a running story of what range of prices existed and when changes occurred and the reasons for these changes of price."

This is the reply dated September 25, 1944, from Mr. Robison to Mr. Burwell, copy to Mr. Haldane.

"Dear Blair: [340]

"In reviewing the ore purchase records in Uravan V. P. Plant——"

(Testimony of Blair Burwell.)

That means vanadium paradox—correct?

A. Yes.

Mr. Archer: (Reading.)

"* * * and checking with Joe Weston, we submit the following information concerning ore purchases at Uravan.

"1. The earliest ore settlement found on record was for October, 1938. From October, 1938 to September, 1939, the purchase of ore was, in most cases, by special arrangement for individual purchases. Ore purchased on V_2O_5 contained was 17c per pound for 2% V_2O_5 ore, increasing one cent per pound for each per cent increase above 2%."

Then he goes through the scale of prices, which are here if some one of you want to read, you can.

The Witness: Doesn't he bring out the matter of hauling allowance?

Mr. Archer: I am getting to that—in one, yes. I have just skipped part of this paragraph on the prices.

"During this time, the ore which was being offered for sale was not considered greatly important due to the fact that the stockpiles were being increased by Company mining operations." [341]

A. That's right.

Q. (By Mr. Archer): In other words, during the period '38 through, let's say, '40, you got most of your ore from your company mines?

A. That's right.

Q. Actually, throughout the entire period of '46,

(Testimony of Blair Burwell.)

you always got most of your ore from the company mines on your own plants, isn't that correct?

A. That's correct.

Q. And that was what led to this 40c price on ore, isn't—I mean, 40c cost on oxide? In other words—— A. That's right.

Q. That's right. And you couldn't have had a 40c cost on oxide if you had been buying ore at 21c and 31c, could you? A. No.

Q. All right.

"2. By September, 1939, more ore was offered for sale and it seemed necessary to establish a regular market price. Attachment No. I lists the prices which were paid at this time.

"3. On January 1, 1941, we increased the amount paid to the sellers by paying 5c per ton mile in addition to the price schedule shown on Attachment I. In order to encourage production from mines located at such a distance from the [342] plant, transportation allowances were necessary for the continuance of these operations."

So you paid the miners, in addition to the cost of the ore, you paid them for hauling it to the various stations?

A. In some cases, yes. There were negotiated prices on varying locations, varying conditions.

Q. (Reading.)

"4. In June, 1942, an additional allowance of $1.50 per ton on ore delivered was added to the schedule Attachment I in order to meet competi-

(Testimony of Blair Burwell.)

tion with plants more favorably located to receive ore from south and southwest areas."

A. That was the Vanadium Corporation plant.

Q. So you put on the hauling allowance in order to meet the competition from them?

A. $1.50 was the difference between hauling ore from the Naturita plant down to the Uravan plant, because the highway—the road went through Naturita and went on down to the Uravan. Therefore, the $1.50 was just the differential between the two plants. I believe that was the case.

Q. And that was in order to keep the miners that were closer to Naturita—in order to get them to bring the ore up to you?

A. Well, most of those miners weren't at Naturita. They were 50 miles south or—— [343]

Q. In other words, to get them to haul past Naturita?

Mr. Alioto: Just a minute, Mr. Archer. I think you should let the witness finish his answers without interrupting him the way you have been doing here. I will object on that ground, if your Honor please.

Mr. Archer: I'm sorry, Mr. Burwell.

The Court: We have been generous now in permitting counsel. Don't interrupt.

Mr. Archer: I'm sorry, your Honor. Go ahead.

A. What is your question?

Q. (By Mr. Archer): I believe I had asked the question: The reason you paid the $1.50 hauling allowance was to get the ore from miners located

(Testimony of Blair Burwell.)

nearer to Naturita and you were saying they were farther south.

A. Yes, it was simply to make the same price at Uravan for a miner for his ore delivered as it was at the V.C.A. plant at Naturita 50 miles up the river.

Q. Did V.C.A. pay a hauling allowance?

A. Well, they, I believe, did pay a certain hauling allowance to Naturita later, Mr. Archer.

Q. I mean in June, '42.

A. You have got to give me a little help in your question.

Q. In June of 1942, at this time?

A. Well, I don't just offhand recall that.

Q. You don't recall? [344]

A. You are simply reading a letter of Mr. Robison's that records what the factual record was. Now, if it is beyond that letter, why, ask your question about it on the time and what hauling allowance and what distance, and I think I could help you.

Q. Well, specifically, it is stated in here that in June, 1942 an additional allowance of $1.50 per ton on ore delivered was added to the schedule.

A. I believe I covered your question.

Q. Then what I wanted to know was whether, at that same time, you knew whether V.C.A. was also paying that hauling allowance?

A. At this time, Mr. Archer, I just don't recall.

Q. You don't recall that.

The rest of the letter, if anybody wants to read

(Testimony of Blair Burwell.)

it, it recalls 1941 special purchases, Harold Stone——

A. Mr. Archer, in relationship to one of your questions—it will just take a swift minute. This study, this is correct. I recollect now the letter. The prices, as I said, being 16c in the early days, were based upon the man's mine and so we bought the ore at his mine. Now, whatever the price was, if it was 17c, it took 5c more to take it to Uravan. So when we talk two languages, we talk about price, we always considered in the office, in the administrative end of it, the cost at our ore bins; but what we might have paid the miner, 17c or [345] even 10c, if it was far distant at the location of his mine, then we paid the charges on the trucks to bring it. He didn't have to pay it. So there is a great deal of detail there that I think is really immaterial as far as the accuracy—I think around 21c delivered. It was just an approximation I testified to. And I think it is essentially correct.

Q. So that they had, then, to be altered to meet the conditions as they arose?

A. As I testified, to meet the conditions, the locations and the various positions of the miner.

The Court: We will recess at this time until 2:00 o'clock.

(Recess until 2:00 o'clock p.m.) [346]

June 4, 1958—2:00 O'Clock P.M.

Mr. Archer: May I proceed, your Honor?

The Court: You may.

BLAIR BURWELL

resumed the stand and testified further as follows:

Cross Examination—(Continued)

Q. (By Mr. Archer): Mr. Burwell, I think several times during your direct examination you referred to the Meta' Reserves Company. I hand you what purports to be an agreement between Metal Reserves Company and the United States Vanadium Corporation, dated February 25, 1942, and ask you whether you can identify that.

A. I can identify it.

Mr. Archer: I offer in evidence, your Honor, this agreement dated February 25th, 1942, between the United States Vanadium Corporation and Metal Reserves Company.

Mr. Alioto: No objection.

(The document referred to was thereupon received in evidence and marked Defendant Union Exhibit B.)

[See Book of Exhibits.]

Q. (By Mr. Archer): Mr. Burwell, this agreement is signed by G. Temple Bridgeman, Executive Vice-President for Metal Reserves Company. Were you acquainted with him? A. I was.

Q. He had never been employed by Union Carbide or its subsidiary, had he?

A. Not to my knowledge.

Q. And it is signed by United States Vanadium Corporation: by J. R. Van Fleet, whom we have already referred to.

Your Honor, I would like to read just a few of

(Testimony of Blair Burwell.)

these provisions. If anybody wants to read more, they can.

Mr. Alioto: What capacity did Mr. Van Fleet sign in, Mr. Archer?

Mr. Archer: Vice-president.

Mr. Alioto: Vice-president. Thank you.

Mr. Archer: (Reading.)

"U. S. Metal Reserves Company, Washington, D. C., February 25th, 1942.

"United States Vanadium Corporation.

"Re: Vanadium Agency Agreement.

"Gentlemen: In accordance with the recommendation of the War Production Board, we wish to proceed with the program for increasing the supply of vanadium urgently needed for war requirements, by producing vanadium from the non-commercial lead vanadate properties of the Southwest with which you are familiar. Accordingly we hereby appoint you our agent, subject to cancellation in our sole discretion upon one month's notice to carry out this program on the terms [348] set forth below.

"1."

The first paragraph relates to investigation.

The second paragraph:

"Development and Production. You will purchase concentrates from third parties required for the program in such quantities and on such terms recommended by you and approved by us.

"You will recommend for our approval plans and designs for the development, equipment and operation of a particular property in its entirety, or

(Testimony of Blair Burwell.)

covering certain stages thereof from time to time, such recommendation to specify, as far as practicable, the equipment and facilities, the leases, the contracts and the purchases involved and estimated costs thereof."

"Upon our written approval of the development of a particular property, you will take all the necessary steps as recommended to develop and equip the property, mine and mill the ore for the concentrate smelted and refined, and to act as our selling and shipping agent in disposing of the vanadium and other materials purchased or produced."

It goes into cost and some of the details, the fee of $1,000 a month, and the last paragraph, paragraph six, reads: [349]

"We agree to protect, indemnify and save you harmless from and against all claims and demands made against you and all judgments, loss or damages incurred by you in the performance of this agency within the authority granted which are not the result of your negligence or intentional misconduct."

Q. Mr. Burwell, who in the United States Vanadium Corporation handled this lead vanadate operation, do you recall?

The Court: Just a moment. What is the date of that letter?

Mr. Archer: February 25, 1942.

The Court: To whom was it addressed?

Mr. Archer: Well, it is a letter agreement from

(Testimony of Blair Burwell.)

the Metal Reserves Company to the United States Vanadium Corporation.

The Court: The United States Vanadium Corporation is a subsidiary of the principal defendant here?

Mr. Archer: Of Union Carbide, not the principal defendant.

The Court: One of the defendants. Pardon me for interrupting your questioning.

Q. (By Mr. Archer): I will restate the question, Mr. Burwell. I was wondering who were the individuals in the United States Vanadium that handled this red vanadate operation.

A. This was principally handled directly by Mr. Van Fleet [350] and myself. I did a small amount of work with it, but the lead vanadate program and agency as defined was a very minor thing. It fizzled out, so it did not become important at all. Mr. Van Fleet did most of the direct handling of that.

Q. This was not on the Colorado Plateau?

A. This was not on the Colorado Plateau.

Q. (By The Court): What territory did this cover?

A. Arizona, the State of Arizona, your Honor, principally.

Q. (By Mr. Archer): Would this be in the area of where the Mammoth-Saint Anthony Mine was? A. That is right.

Q. You have already referred to that several times? A. That is right.

Mr. Alioto: May I have that, Mr. Archer?

(Testimony of Blair Burwell.)

Q. (By Mr. Archer): I now show you an agreement dated April 9, 1942, between Metal Reserves Company and United States Vanadium Corporation, entitled "Re Agency Agreement, Sandstone Vanadium, Durango Project," and ask you whether you can identify that.

Mr. Alioto: Mr. Archer, if you are worried about authenticity, we will stipulate to that. Don't waste any time on it. We will take your representation.

Mr. Archer: Thank you. These are all originals signed.

Could I have this marked as Defendants' Exhibit next [351] in order?

(The document referred to was thereupon received in evidence and marked Defendant U's Exhibit C.)

[See Book of Exhibits.]

Q. (By Mr. Archer): I would like to read portions of this. This again is signed by Mr. G. Temple Bridgman for Metal Reserves, and J. R. Van Fleet, United States Vanadium Corporation.

The Court: This Metal Reserves Company was a government agency?

The Witness: It was a government corporation, wholly owned agency of the government.

Mr. Archer: "Metal Reserves Company, Washington, D. C., April 9th, 1942.

"United States Vanadium Corporation, 30 East 42nd Street, New York, N. Y.

"Re Agency Agreement, Sandstone Vanadium, Durango Project.

(Testimony of Blair Burwell.)

"Gentlemen:

"In accordance to the recommendation of the War Production Board, we wish to proceed with a program for increasing the supply of vanadium urgently needed for war requirements by purchasing the vanadium or the non-commercial sandstone ore properties of the Southwest with which you are familiar."

Q. Now, the sandstone ore properties were which area? [352]

A. The Colorado Plateau.

Q. This is the area about which you are generally—most familiar? A. That is right.

Q. "In your letter of March 18, 1942, you informed us of several possible locations for vanadium reduction plants in the Southwest. With the exception of a proposed plant at Durango, Colorado, it is our understanding that each plant would cost in excess of $100,000 and would therefore be handled as a Defense Plant Corporation project if and when approved. As the Durango plant will not cost in excess of $100,000, we are writing this letter to authorize you to proceed on terms similar to the vanadium agency agreement of February 25th, 1942, covering the lead vanadate properties. The Durango plant and any other plants approved by and constructed for the Defense Plant Corporation will be operated by you at the expense and under the direction of this company under a single operating agreement to be entered into hereafter between your company and this company."

(Testimony of Blair Burwell.)

It then goes into the acquisition of the plant, purchase of material, costs and disbursements, and it has the same indemnity clause as the prior agreement.

Mr. Alioto: Mr. Archer, that document referred to [353] a prior letter. Do you have the prior letter by any chance?

Mr. Archer: I will look for it. These are Metal Reserves' files and if I can find the letter I will get it, or send for it.

Q. (By the Court): From this date, 1942, how long did you operate under the direction of the Government in accordance with those letters?

A. Your Honor, are you asking me that question?

Q. Yes, sir.

Mr. Archer: Your Honor, I have one more letter, one more agreement. Maybe I should put that in first. Pardon me for interrupting.

The Court: Very well.

Mr. Archer: May I have this, the vanadium agency agreement dated May 9th, 1942, between Metal Reserves and United States Vanadium Corporation, marked as Defendant's Exhibit next in order.

Mr. Alioto: We will stipulate to authenticity.

(The document referred to was thereupon received in evidence and marked Defendant U's Exhibit D.)

[See Book of Exhibits.]

(Testimony of Blair Burwell.)

Mr. Archer: This is a regular agreement, not a letter agreement, dated May 9th, 1942.

"Witnesseth, that whereas the increased domestic production of vanadium and its ore concentrates and the expansion of facilities within the United States [354] for such production are necessary to the national defense, and to the successful prosecution of the war efforts of the United States;

"And whereas, in accordance with the recommendation of the War Production Board an agreement dated April 9th, 1942, has been entered into between Metals and Vanadium for the construction of such facilities in the vicinity of Durango, Colorado, the cost not in excess of $100,000, and to have a capacity for the treatment of approximately 100 tons of vanadium ores per day in the production of vanadium ore concentrates, said facilities hereinafter called the Durango plant;

"And whereas in accordance with a recommendation of the War Production Board it is contemplated that additional facilities estimated to cost approximately $400,000 will be constructed as hereinafter mentioned in the vicinity of Grand Junction, Colorado, to have the capacity for the treatment of approximately 100 tons of vanadium ores per day in the production of vanadium ore concentrate, said facilities being hereinafter called the Grand Junction plant——"

Q. That Grand Junction plant was not constructed for Metal Reserves, was it?

A. It was never constructed at all.

(Testimony of Blair Burwell.)

Q. Not constructed at all. Then the first paragraph [355] relates to the construction of a grand Junction plant. The second paragraph:

"Operation of plants and purchases of ores. Vanadium shall operate the plants for Metals' account. Metals will have at its option representatives at the plant who will act independently in sampling of shipments and have sole custody of all control samples.

"Vanadium shall exert its best efforts to purchase for Metals' account vanadium ore suitable for treatment in the plants at reasonable prices not to exceed 50 cents per pound of vanadium pentoxide contained, delivered at suitable loading points or ore-receiving stations, unless Metals shall hereafter authorize the payment of prices for such ores in excess of said 50 cents per pound.

"Vanadium will also upon request of Metals, act as agent for Metals in selling or otherwise disposing of and shipping the production of the plants. Detailed instructions covering the sales will be forwarded to Vanadium at a later date. Employees of Vanadium will not be employees of Metals for any purposes hereunder."

This is signed by G. Temple Bridgman and the secretary's name for Metal Reserves Company, I cannot read. [356]

For United States Vanadium Corporation it is signed by Mr. Gormely and it says, "Vice-President" at that time.

Q. Is that correct? It must be.

(Testimony of Blair Burwell.)

A. I just don't offhand know. Mr. Gormely might have been, at least he might have been created vice-president for that purpose.

Q. This was May, 1942. You were made vice-president in 1944? A. He could have been.

Q. (By the Court): How long did these contracts remain in effect?

A. Your Honor, my best recollection, about a year and a half, possibly two years from the time they started. In other words, from 1942 to mid-1943 or 1944.

Q. During that time who controlled the disposition, the sale of vanadium in the United States?

A. The Vanadium Corporation of America, I believe, was controlling the distribution and sale of the major part of the vanadium in the United States. The Electro Metallurgical Company was controlling the disposition of a minor part. There was no one in control. It was relative.

Q. In what manner were the sales, the disposition of this vanadium made during that period? Who determined the purchasers?

A. The War Production Board, I believe determined the purchasers of the vanadium resulting from the Metal Reserves, [357] and, as a matter of fact, for a period of time they controlled all purchasers. I believe that was the time that vanadium was under allocation. In other words, whoever used vanadium or whoever used other metals similar to vanadium had to go to the government agencies, which were, I think, the War Production Board, if

(Testimony of Blair Burwell.)

I am not mistaken, and obtain an allocation upon showing of the fact that it was going into the war effort and that they had a consumer who had a war contract and who would certify that he needed it.

So, for this time, I think that vanadium was all under allocation.

Q. Then what authority would any of the defendants in this case have to dispose of vanadium during that period without the approval of the War Production Board?

A. Well, to my best recollection, your Honor, I think it would all depend upon the War Production Board's disposition.

Mr. Archer: As Defendant's exhibit next in order, I will offer a letter agreement dated November 2nd, 1942, between Metal Reserves Company and United States Vanadium Corporation modifying the last exhibit.

Mr. Alioto: May I have that date again, Mr. Archer?

Mr. Archer: November 2nd, 1942.

Mr. Alioto: No objection.

(The document referred to was thereupon received in evidence and marked Defendant U's Exhibit E.) [358]

Mr. Archer: This is signed by G. Temple Bridgman and Van Fleet:

"Gentlemen:

"Reference is made to the Vanadium Agency

(Testimony of Blair Burwell.)

Agreement dated as of May 9, 1942, between your Corporation and this Company, the third sentence of Paragraph 2 which provides in part for the purchase of your Corporation for the account of this Company of vanadium ores 'suitable for treatment in the Plants,' i.e., the vanadium ore treatment plants at Durango and Grand Junction, Colorado. In view of (1) the fact that construction of the Grand Junction plant is, as you know, being deferred, (2) the arrangements which have been made for the operation of the vanadium ore treatment plant at Monticello, Utah by Vanadium Corporation of America, as Agent for this Company, and (3) the contemplated delivery of ore purchased by your Corporation, as our Agent, for treatment at the Gateway, Colorado plant of Gateway Alloys, Inc., now being operated by Messrs. Nisley & Wilson, we believe it advisable to modify the third sentence of Paragraph 2 of the above agreement to read as follows:

"'Vanadium shall exert its best efforts to [359] purchase for Metals' account vanadium ores suitable for treatment in such vanadium ore treatment plants as Metals shall from time to time designate, including the Plants, at reasonable prices not to exceed fifty cents (50c) per pound of vanadium pentoxide contained, delivered at suitable loading points or ore receiving stations, unless Metals shall hereafter authorize the payment for prices for such ores in excess of said fifty cents (50c) per pound. Vanadium shall treat ore so purchased in

(Testimony of Blair Burwell.)

the Plants, or shall sell such ore to others for treatment in the other vanadium ore treatment plants designated hereunder by Metals, or shall deliver such ore for treatment in plants so designated on such terms as may be authorized by Metals.'

"Accordingly, we hereby amend said Agreement by deleting therefrom the third sentence of Paragraph 2 and substituting in lieu thereof the language quoted in the immediately preceding sentence of this letter. If this amendment is acceptable to you, please sign and return to us the enclosed copy of this letter, to constitute an amendment as of the date hereof to said Agreement dated as of May 9, 1942. [360]

"Pursuant to said Agreement dated as of May 9, 1942, as so amended, we hereby designate the above-mentioned plant at Monticello, Utah, as one of the plants to be supplied with vanadium ore purchased by you as our Agent under said Agreement, and accordingly we request you, as promptly as possible, to make the necessary arrangements to supply Vanadium Corporation of America with ore so purchased. A substantial part of the ore to be supplied by you for the operation of the Monticello plant is to be purchased by you from that Corporation, and includes both production from its mines as well as ore presently stockpiled at the Monticello plant. You are to purchase ore currently produced by Vanadium Corporation of America in accordance with said Agreement dated as of May 9, 1942, as amended; instructions governing the purchase of

(Testimony of Blair Burwell.)

ore stockpiled at the Monticello Plant will be given to you at a later date."

Q. Mr. Burwell, do you recall the name of the individual who ran the ore stockpiling plant at Monticello?

A. Just at the moment — I think Mr. Holland can give us a bit of help. He is working for you in Durango right now.

Mr. Holland: Pardon me?

Mr. Archer: Paig Edwards? [361]

A. Paig Edwards.

Q. He was hired by Mr. Whitaker, was he not?

A. Well, technically, I don't think that's quite correct. I think Mr. Van Fleet knew Paig Edwards and Mr. Whitaker was acting as an umpire in the matter of the question between the two companies. Mr. Edwards then was officially the designate of Mr. Whitaker, but he was paid by Metals Reserve on that account. I don't know the mechanics of who hired him.

Q. And Mr. Whitaker reported directly to Mr. Bridgman, didn't he?

A. Well, he reported directly to Metals Reserve. I don't know who in Metals Reserve. Mr. Bridgman was only there a short time, and he was followed shortly after by another man, Mr. Henry DeWitt Smith.

Q. I show you a letter dated October 21, 1942, from Mr. Hill to Mr. Whitaker, copy to you, and ask you whether you can identify this letter and the individuals referred to?

(Testimony of Blair Burwell.)

A. (Witness examining): Yes, I have a copy of this letter right here.

Mr. Alioto: We make no question of identification, Mr. Archer.

(Inaudible remark of witness.)

Mr. Archer: I think his secretary signed it, but who was John W. Hill or who is he or what——

A. He was the engineer in charge of the Metals Reserve [362] agency, under my direction.

Q. Where was his office?

A. Grand Junction, Colorado.

Q. And at this time you were in New York, your address at 30 East 42nd Street?

A. That's right.

Mr. Archer: I offer that as Defendant's exhibit next in order.

Mr. Alioto: No objection.

The Clerk: Defendant U's Exhibit F admitted and filed in evidence.

(Whereupon, copy of letter dated October 2, 1942, J. W. Hill to Orville R. Whitaker, was received in evidence and marked Defendant U's Exhibit F.)

Mr. Archer: It is addressed to Mr. Orville R. Whitaker, 932 Equitable Building, Denver, Colorado.

"Dear Mr. Whitaker:

"I just had a copy of a wire from Mr. H. DeWitt Smith, Metals Reserve Company, Washington, D.C."

(Testimony of Blair Burwell.)

He was the president, was he not — or Temple Bridgman?

A. No, I think he followed Mr. Bridgman. He's vice-president—he was an officer of Metals Reserve, anyway.

Mr. Archer: (Reading)

"I just had a copy of a wire from [363] Mr. H. DeWitt Smith, Metals Reserve Company, Washington, D. C., that was addressed to Mr. Blair Burwell, concerning the Nisley-Wilson Vanadium Mill at Gateway, Colorado. The wire requested our cooperation with Nisley and with you. Please advise me what arrangements have been made by the Metals Reserve Company with you concerning this operation.

"Mr. Harry Gardner and Mr. Frank Nisley, Jr., were in this office yesterday, in the presence of Mr. Burwell and myself, and we discussed the possibility of Metals Reserve Company furnishing Nisley and Wilson with ore, and Nisley and Wilson should mill the ore and deliver the vanadium oxide concentrate to the Metals Reserve at a contract price; therefore, the price of the ore is not a consideration. However, the grade would be established at a minimum of 2.00% V_2O_5 and the ore was to come from the Gateway area in order to get the proper character of ore.

"Mr. Gardner stated that he estimated, and it would be necessary to confirm his estimate with his partners, that the vanadium oxide could be produced at $.90 per pound, in other words, they would

(Testimony of Blair Burwell.)

mill the ore for a cost of $.90 per pound. In my [364] opinion this seems a little high.

"However, Mr. Gardner stated that before he could consider this further, he would have to check with the War Production Board as they have wired him that arrangements were being made for their operation."

Do you recall this conference among yourself, John Hill, Frank Nisley and Harry Gardner?

A. Mr. Archer, what is the date of that letter again?

Q. October 2, 1942.

A. And the question, do I recall——?

Q. Just, recall the conversation as stated here.

A. In New York?

Q. Well—— A. Washington?

Q. It sounds as though it's in Grand Junction.

A. Yes, I do recall that conversation.

Q. And who was Harry Gardner?

A. Well, he was one of the owners or one of the partners of Nisley — Gateway Alloys Company, at that time, I believe.

Q. I show you a copy of a letter dated October 12, 1942, from United States Vanadium Corporation, Agent for Metals Reserve Company, Blair Burwell, to Messrs. Nisley and Wilson, and ask you whether you can identify that?

A. (Witness examining): Yes, I can identify it, as my letter. [365]

Mr. Archer: I offer this as defendant's exhibit next in order, your Honor.

(Testimony of Blair Burwell.)

Mr. Alioto: No objection.

The Clerk: Defendant's U's Exhibit G admitted and filed into evidence.

(Whereupon, letter of October 12, 1942, U. S. Vanadium to Messrs. Nisley and Wilson, was received in evidence and marked Defendant U's Exhibit G.)

Mr. Archer: This is a letter dated October 12, 1942, from Mr. Burwell, copies to J. R. Van Fleet, H. DeWitt Smith, Orville Whitaker.

The letter is to Nisley and Wilson, Leasers, Gateway Alloys Company, Gateway, Colorado.

"Gentlemen:

"In regard to the proposed arrangements for supplying your operation with ores by the Metals Reserve Company, it will be necessary for you to furnish the Metals Reserve Company with a statement of detailed estimated cost of converting Metals Reserve Company ore to fused oxide.

"These statements of detailed cost should show the direct labor, salaries—Mr. Nisley and Mr. Wilson, supplies and repairs, depreciation, mill rental, profit, and any other costs which you estimate enter into this operation. [366]

"In accordance with our meeting in Denver on October 9, with Mr. Orville Whitaker, we will recommend for the consideration of Metals Reserve Company the arrangement discussed in Denver.

"The Metals Reserve Company in Washington has requested the detail of this estimated cost in

(Testimony of Blair Burwell.)

order that they may consider the matter and prepare a contract which would meet the requirements of the Metals Reserve Company.

"Mr. Hill is proceeding immediately with arrangements to establish an ore purchasing station at Gateway and to create a stockpile of ore at that point in anticipation of the completion of this arrangement.

"At the present time, the entire ore purchases in the Gateway-Uravan area do not equal the amount that you state you require for your mill, and it will be necessary to work out some arrangement to place the Calamity-Maverick mining areas into production.

"The United States Vanadium Corporation will be glad to cooperate with you in obtaining the necessary supply of ore as soon as we are authorized by the Metals Reserve Company in Washington."

Mr. Burwell, it states in here that "it will be necessary [367] to work out some arrangement to place the Calamity-Maverick mining areas into production." Do you know what that referred to?

A. Yes.

Q. What? A. What it says.

Q. Do you know what were the problems?

A. Well, you see, previously to this, Mr. Archer, as I believe I previously testified, that the available, accessible ore on the Calamity-Maverick mesa had been gathered up and mined and taken to Uravan—I believe that's correct—and, therefore, the properties were depleted to regular accessible ore.

(Testimony of Blair Burwell.)

And again following my previous testimony, I believe I stated it was necessary to dig under greater depths and open up new tunnels and start again, because you had harvested what was readily available and you had to start a new preparation or a new harvest. That is what that meant.

Q. Well, I now show you a letter dated October 13, 1942, from J. W. Hill to H. DeWitt Smith, copies to Mr. Van Fleet, yourself, W. G. Haldane and Mr. Orville Whitaker, and ask you if you can identify that letter?

A. (Witness examining): This is his signature. I don't know the letter, of course.

(Whereupon, letter dated October 13, 1942. Hill to Smith, was received in evidence and marked Defendant U's Exhibit H.) [368]

Mr. Archer: In this letter, Mr. Hill states to Mr. Smith:

"We are transmitting herein an estimate of cost of operation of the Nisley and Wilson Vanadium Mill at Gateway, Colorado, which has been prepared by Messrs. Nisley and Wilson in connection with the proposed treatment of Metals Reserve Company ore at the Gateway Plant.

"At the present time, this plant is not being operated at its estimated full capacity of 20 tons per day and Mr. Nisley and Mr. Wilson state that the figures submitted are estimates only and may vary somewhat with actual operation.

"While the costs appear to be much higher than

(Testimony of Blair Burwell.)

we experience in a larger plant, a more economical arrangement, it would be our recommendation that Metals Reserve Company make an arrangement with Messrs. Nisley and Wilson for the treatment of Metals Reserve ore at their plant and deliver fused vanadium oxide of suitable specifications to Grand Junction, Colorado, at a price of $.85 per pound for 1.50% V_2O_5 contained vanadium ore; $.80 per pound for 2.00% V_2O_5 contained vanadium ore; $.75 per pound for 2.50% V_2O_5 contained vanadium ore."

Then I will skip a paragraph. It says: [369]

"It is recommended that tailings from this operation remain the property of Metals Reserve Company and be stored and preserved by Nisley and Wilson in accordance with instructions from Metals Reserve Company."

Now, of what did those tailings consist, Mr. Burwell?

A. They consisted of approximately 25% of the total vanadium, the lead ore, and all the vanadium that was in that ore.

Q. Do you know what happened to the tailings from the Nisley and Wilson operation that were preserved for the Metals Reserve Company?

A. Well, I believe part of them were washed away by the river and part of them were purchased and moved up to Uravan later on as part of the Manhattan District project.

Q. Then the uranium process?

A. And the vanadium process.

(Testimony of Blair Burwell.)

Mr. Archer: Continuing reading:

"At the present time, ores sufficient for this operation are not available in the Gateway District and arrangements will have to be made to stimulate the production of the Calamity District mines of Brown and Bowman, under contract from the Molybdenum Corporation of America, as well as other surrounding areas now under development.

"In proceeding with the arrangements for the Calamity District mines, this office will endeavor to procure an adequate engineering report of the district that can be used for a basis of securing development and working capital loans from the Metals Reserve Company if the same are necessary to expedite production.

"We believe the Calamity District can be developed into a substantial vanadium producer that will supply ore in excess of the Nisley-Wilson Plant capacity.

"At the present time, ore purchases by the United States Vanadium Corporation, at Uravan, from all the areas tributary to the Uravan Plant, do not reach the total tonnage required by Nisley and Wilson.

"We are proceeding with the installation of an ore purchase station at Gateway and the organization of a mining program on the Calamity District claims, subject to the agreement of the interested parties, and we will exert every effort to see that the Nisley and Wilson Plant is supplied with all

(Testimony of Blair Burwell.)

the ore possible if the Metals Reserve Company enters into the agreement as suggested."

Did Mr. Hill and Mr. Haldane, under you, make every [371] effort to put the Nisley and Wilson plant into operation for the Metals Reserve Company? A. That's right, we did.

Q. Do you recall that one of the difficulties in getting the Nisley and Wilson Mill into operation was due to the fact that Gateway Alloys was in bankruptcy and certain of the claims were subject to the orders of the bankruptcy court and the claims of certain creditors?

A. I believe there was something in that connection. The detail I don't remember.

Q. Do you recall who mined those claims for Metals Reserve—I will withdraw the question.

Didn't Ennis Cole mine the Calamity mines for Metals Reserve and turned their proceeds, the ore, over to the Nisley and Wilson plant?

A. I think that's right. I think we got ahold of Ennis Cole, who is a good miner, and had equipment, and arranged—Mr. Hill arranged with him to start mining and developing the area in question.

Q. Well, prior to that time, Ennis Cole had been the trustee in bankruptcy of the Gateway Alloys' claims, had he not? A. Well, I don't know.

Q. You don't recall that?

A. I don't recall. I believe that——

Q. I show you a letter from John Hill, United States [372] Vanadium Corporation, Agent for Metals Reserve, dated October 22, 1942, to Mr. De-

(Testimony of Blair Burwell.)

Witt Smith, copies to J. R. Van Fleet, yourself, and Mr. Haldane, and ask you whether you can identify that?

A. (Witness examining) I can identify it.

Mr. Archer: I offer this as defendant's exhibit next in order. It shows the prices paid for the ore in the Cateway District.

The Court: Mr. Burwell, how many corporations or individuals were engaged in different mining projects in this particular territory?

A. At this particular time?

The Court: Well, from '38 to '46.

A. Let me give some thought to that answer, your Honor. There were probably 40 or 50 small mining groups and small mining companies, small mining individuals, who employed one or up to twenty-five men during this period, and they all together produced 170,000 tons of ore in that period from the various plants.

The Court: Did any of those fail for lack of capital or lack of engineering knowledge or want of—because they didn't discover——

A. I thought there were a few casualties in the group. Some of them did. Just at the moment, I can't recall their names. I believe there were one or two over in Moab who [373] couldn't meet their payroll, but, as a rule, we had an elastic price arrangement of 50c a pound—as you note in these contracts, and it was designed for just that particular purpose.

In other words, if you note, this contract which

(Testimony of Blair Burwell.)

is 50c compared to, say, 31c that previously existed. In the conferences that led to setting up this metals reserve program, we contemplated the fact that many of these people had remote areas and required road-building and more assistance to start up or to meet an initial need than the larger mining groups who were established. And, therefore, we requested a formula—I think that was my request—of 50c a pound which in some cases, if a miner was facing trouble, maybe we would pay him 38c, it might have been in one place—it wasn't a fixed 50c. If he would show he would fail if he didn't get more money, why, then, we would raise the price to give him a fair profit and still bring the ore out for the metal needs. [374]

The Witness: It was an elastic arrangement.

Q. (By The Court): What number of those that had invested in these leases and operations actually had mills that processed the ore?

A. I recall three, your Honor.

Q. What I am getting at, were there a number who mined the ore and sold the ore and did not pretend to process it?

A. The greater number of the people that were mining ore were people who had mines but had no mills, and therefore this program of the Durango mill and the Monticello mill was to give them a processing outlet for their ores and fused oxide, and I believe there were probably 20 or 25 or more of those miners, miners in groups, who up to that time did not have a processing mill available, and

(Testimony of Blair Burwell.)

therefore had not been able to operate prior to that.

Q. Who would buy the ore in that territory?

A. Well, up to the Metal Reserve program, the Vanadium Corporation of America and the United States Vanadium Corporation were buying the ore at a price which was roughly based on the cost of mining. In other words, it was not a high price; it was simply a price that was somewhat equivalent to the cost of producing the ore from their own mine. In this—this particular program to meet war needs was a somewhat abrupt reversal of previous policies that had been contained up to that time, and when the War Department asked me and Mr. [375] Van Fleet into a conference to get more vanadium, we said these people who have not had a processing plant or been able to get ore or operate, that if we provide them with a processing outlet in various plants, then we can increase the output of vanadium for the war effort.

And so we were asked—the Vanadium Corporation was asked to provide a plant, and we were asked to provide a plant where plants and war processing centers would be located, operated at government expense, to give the owners of the mines their outlets in fused oxide.

Therefore the whole program of Metal Reserves was somewhat of an abrupt reversal of previous policies by giving those 25 or 30 small miners an outlet at government expense.

Q. Let me ask you this: What could these miners, whether they were corporations or individuals,

(Testimony of Blair Burwell.)

that operated these mines and had no mills to process, what could they have done with the ore had they not sold it to these mills?

A. You mean prior to this?

Q. Yes, sir.

A. They couldn't do anything with their ore.

Q. What I am getting at is, was it anything unusual or out of the ordinary to purchase ore from these various mines that did not have mills?

A. No, no, no. As a matter of fact, that was very often in their mind. A miner might think he was not getting enough [376] from his ore to live on. He would complain about what he got, which is chronically the case, but it is the usual thing, your Honor.

Mr. Archer: Your Honor, I offer as defendants' exhibit next in order, Mr. Hill's request to Mr. Smith in a letter dated October 22, 1942, for approval of entering into a lease with the trustee of the Gateway Alloys, Inc., for the ore at the Gateway mill.

Mr. Alioto: No objection.

(The letter referred to was marked Defendant U Exhibit I in evidence.)

[See Book of Exhibits.]

Mr. Archer: And just to complete the record, Mr. Burwell, I will show you Mr. Bridgman's letter dated November 19, 1942, to the United States Vanadium Corporation, copies to you and to Mr. Hill, approving Mr. Hill's request.

I offer that as defendants' exhibit next in order.

(Testimony of Blair Burwell.)

Mr. Alioto: No objection.

(The letter referred to was thereupon marked Defendant U Exhibit J in evidence.)

[See Book of Exhibits.]

Q. (By The Court): At the time this contract was made with the government in 1942 what was the status of your supply of ore or vanadium with these defendant companies?

A. The United States Vanadium Corporation has a relative abundance of ore, your Honor. They owned most of their own [377] mines, while the Vanadium Corporation of America, who had newly entered the field and did not have mining properties, was rather deficient and more dependent upon buying ore.

Q. Did you have quite a quantity of ore on hand, or vanadium on hand, at the time you made this agreement with the government?

A. No, at the time we made the agreement with the government the war needs had taken over. All the vanadium that we could possibly produce was being shipped to the war effort. Everything was empty of vanadium. War had entirely changed all our market position.

Q. (By Mr. Archer): Mr. Burwell, I show you now a letter from G. Temple Bridgman of the Metal Reserves Company to the United States Vanadium Corporation dated November 25, 1942. Attention, Mr. J. R. Van Fleet, vice-president, copies to Messrs. Nisely and Wilson, Blair Burwell.

(Testimony of Blair Burwell.)

O. R. Whittaker, and J. W. Hill, and ask you whether you can identify that letter.

A. Yes, I believe I can.

Q. This was your authorization to enter into the toll agreement with Nisely and Wilson, is that correct?

A. I think that is correct, without reading the details.

Mr. Archer: I offer this as defendants' exhibit next in order.

Mr. Alioto: No objection. [378]

(The letter referred to was thereupon marked Defendant U Exhibit K in evidence.)

[See Book of Exhibits.]

Mr. Archer: Your Honor, this has a designation of "Restricted" on it by the government, but it has been declassified. It just happened that this copy was not crossed out. I will read just one paragraph with regard to this, or a few sentences in regard to this authorization (reading):

"If this agreement as enclosed is acceptable to you and Messrs. Nisely and Wilson, we authorize you as agent for this company to execute it, provided your counsel is satisfied that the lease under which Messrs. Nisely and Wilson are operating the Gateway plant is valid and binding upon the parties thereto. We have obtained a copy of this lease together with other related documents from counsel for Messrs. Nisely and Wilson, and these documents, together with a copy of the accompanying letter of their counsel, are enclosed herewith."

(Testimony of Blair Burwell.)

The enclosed agreement provides in substance that:

"For a period of 90 days your corporation, as agent, will supply vanadium ore for the operation of the Gateway plant; that such ore will be treated at such plant in consideration of the treatment charges specified in the agreement; and that all fused vanadium oxide, together with all tailings, produced [379] from such ore will be returned to you, as agent, at the Gateway plant.

"The agreement has been prepared upon the basis of a term of 90 days from the date of its execution, it being contemplated that the operation of the plant during this period will furnish a basis for subsequent agreement.

"Accordingly, during the term of the enclosed agreement, you should request and obtain from Messrs. Nisely and Wilson such complete information as to costs of operation, et cetera, as may be necessary for this purpose. You will act as shipping agent for this company, arranging for the shipment of vanadium oxide and tailings returned to you by Messrs. Nisley and Wilson to consignees designated by us, and following our written instructions as to means of transportation, routing and forwarding bills of lading, invoices and other related documents."

Q. Mr. Burwell, do you know to whom the production from the Nisley and Wilson mill was consigned by the Metal Reserves Company?

A. No, I don't recall at this time.

(Testimony of Blair Burwell.)

Q. Do you recall that before you could get the agreement executed you had some difficulty or some delay in getting the [380] approval of the Molybdenum Corporation of America, who owned part of the leases in this area?

A. That might have been the case, but I don't recall.

Q. I will show you a telegram—I do not think it shows the date on it—oh, yes, it does—January 7, 1943, from Blair Burwell, United States Vanadium Corporation, Agent for Metal Reserves Company, to Harry K. Masters, and ask you whether you can identify that.

A. Yes, I think so. It was a detail that had to do with the contract.

Mr. Archer: I offer this as defendants' exhibit next in order.

Mr. Alioto: Have you identified the handwriting on this, Mr. Archer?

Mr. Archer: I don't know.

Mr. Alioto: Can Mr. Burwell?

Q. (By Mr. Archer): Can you identify the handwriting?

A. I am not sure. I think that is Mr. Masters' writing, but I wouldn't say.

Mr. Alioto: We have no objection in any event to the introduction of the exhibit.

Mr. Archer: I think it is Mr. Masters'.

The Witness: I don't think it is important. Just a note about what he did. I think it is Mr. Masters' telegram, [381] and I think he simply noted on

(Testimony of Blair Burwell.)

there that that came from the Mineral Reserves file, Mr. Archer.

Q. (By Mr. Archer): It came from the Molybdenum Corporation files, so it must be his handwriting.

(The telegram referred to was marked Defendant U Exhibit L in evidence.)

[See Book of Exhibits.]

Mr. Archer: In other words, it is a copy of the one that was received, not the one that was sent. It states (reading):

"January 7, 1943

"Harry K. Masters

"C O Molybdenum Corporation of America

"Operation of Gateway Alloys Plant

"U. S. Now Shut Down Pending Molybdenum Corporation Agreement of Reece Referring to Our Letter December Twelfth and Your Reply December Twenty-One Stop. Would Very Much Appreciate Your Final Approval, Which I Understand Depends Upon Your Counsel James S. Crawford Stop. If Approved Will You Please Wire Mr. J. W. Hill, Grand Junction, So That The Gateway Alloys Trustees Can Proceed With Delivery of Ore and Start Plant Operations. Regards.

"Blair Burwell

"United States Vanadium Corporation, [382]

"Agents For Metal Reserves Company."

Q. (By Mr. Archer): Do you recall, Mr. Burwell, that you also participated in attempting to ar-

(Testimony of Blair Burwell.)

range some financing for the Nisley and Wilson mill so that its capacity could be enlarged?

A. I possibly could have done so. I remember that the local bank needed some assurance as to the matter, and I think that I spoke to the bank and told them that I would back up or guarantee certain financial transactions in accordance with our *Metal Reserves* agreement.

Q. I will show you a copy of a telegram dated January 19, 1943, from John Hill to Mr. Blair Burwell and ask you whether that refreshes your recollection.

A. Why, yes. I recall now that they had gone to the RFC for operating money, and that the procedure was quite—would take a long time, and we assisted them in their request for the RFC, but decided they could not move fast enough, so the result, I think, was the reason for this telegram.

Mr. Archer: I will offer the telegram as defendants' exhibit next in order.

Mr. Alioto: No objection.

(The telegram referred to was thereupon marked Defendant U Exhibit M in evidence.)

Mr. Archer: Telegram dated January 19, 1943 (reading): [383]

"Mr. Blair Burwell
"Room 1426 30 East 42nd Street
"New York, N. Y."——

from John Hill (continuing reading):

(Testimony of Blair Burwell.)

"Nisley and Wilson Cancelling Request For RFC Loan Stop. I Recommend Metal Reserves Advance Them $4800 For Working Capital and Certain Fixed Capital Necessary Before Plant Is Placed Into Operation At Maximum Capacity Stop. Advance to Be Repaid In Ninety Days By Deducting Ten Cents a Pound V_2O_5 Produced Stop. Ore Supply Seems Assured For Twenty Days Stop. Letter Follows."

Q. (By Mr. Archer): Do you recall whether they finally made the advance from Metal Reserves, or whether they finally got the RFC loan?

A. My best recollection, Mr. Archer, is that we let them have the money from the Metal Reserves. I believe I recommended the Metal Reserves give them that assistance.

Q. In any event, they did get the money to go ahead with that operation?

A. Yes. You see, they had a $50,000 plant originally, and they were converting to meet some problems, and they had not quite finished that conversion and needed a certain amount of money to complete that. So I think the story was there was some urgency in how fast they got the money, and because [384] of that the Metal Reserves advanced them money, which they were authorized to do under the approval of the Metal Reserves in Washington.

Q. Do you recall what those problems were?

A. Oh, I think they were minor problems of the plant, such as they had to replace a fan that was

(Testimony of Blair Burwell.)

not the proper type of fan. We had other questions. I don't remember the details.

Q. Technical problems?

A. Technical problems.

Mr. Archer: Does your Honor want to recess now?

The Court: Very well, we will recess for ten minutes.

(Short recess.) [385]

Mr. Archer: Shall I proceed, your Honor?

Q. You will recall, Mr. Burwell, that I had asked you if you knew where the production from the Nisley and Wilson plant under the Metals Reserve operation went, and I believe you said that you did not recall. Is that correct?

A. That's correct.

Q. I now show you a letter from G. Donald Emigh—I believe we referred to him before.

A. That's right.

Q. And he was a mining engineer that worked for United States Vanadium Corporation?

A. Correct.

Q. Letter from G. Donald Emigh, United States Vanadium Corporation as agent for Metals Reserve Company, to Continental Ore Company, 500 Fifth Avenue, New York City, Attention Mr. Wolf, dated May 4, 1943, copies to J. R. Van Fleet, Blair Burwell and J. W. Hill, and ask you whether you can identify that?

(Witness examining.)

A. Well, that's his signature. I can identify it.

(Testimony of Blair Burwell.)

Mr. Alioto: Excuse me, Mr. Archer. Is this being offered to show where Nisley and Wilson production went?

Mr. Archer: I was going to ask Mr. Burwell if this would refresh his recollection.

Mr. Alioto: You are not offering it then? [386]

Mr. Archer: I am going to offer it.

Mr. Alioto: Well, I am going to object to it, if your Honor please, because if it is intended to show that this production went to Continental Ore Company, it is contrary to the fact.

Mr. Archer: I agree, it is contrary to the fact.

Mr. Alioto: Oh, all right. We would like——

The Court: I have no idea what it would show. But is it competent evidence?

Mr. Alioto: I don't think it is, if your Honor please. It is—well, we have no objection to it. The facts will develop. Well, just—we will not object to it. We have no objection to it being received in evidence, if your Honor please.

The Clerk: Defendant U's Exhibit N admitted and filed in evidence.

(Letter, May 4, 1943, G. Donald Emigh to Continental Ore Company, received in evidence and marked Defendant U's Exhibit N.)

Mr. Archer: A letter dated May 4, 1943, from United States Vanadium Corporation, as agent for Metals Reserve Company, to Continental Ore Company, 500 Fifth Avenue, New York City, Attention Mr. M. Wolf.

(Testimony of Blair Burwell.)

"Enclosed is copy of our letter asking Ledoux and Company to analyze shipments of fused vanadium [387] oxide from the Nisley-Wilson plant, Gateway, Colorado, on their arrival at Langeloth, Pennsylvania.

"We are asking our Colorado office to mail you both in New York and at Langeloth copies of the bills of lading on the date shipments are made.

"Will you please advise Ledoux and Company on arrival of product at Langeloth so that they can arrange to weigh, sample and analyze shipments."

Q. Mr. Burwell, I now show you——

Mr. Alioto: Excuse me, would you have any objection to having the witness identify what Langeloth is, if he knows?

Q. (By Mr. Archer): Langeloth, Pennsylvania, is where Climax Molybdenum Company has their plant, that's correct, is it not?

A. That's correct.

Mr. Alioto: Thank you.

Q. (By Mr. Archer): Mr. Burwell, I show you a letter dated May 12, 1943, from G. Donald Emigh to Mr. J. W. Hill, Supervising Engineer, copy to J. R. Van Fleet and Blair Burwell, and ask you whether you can identify that letter, together with the enclosure.

A. (Witness examining) I believe I could identify it. There's a lot of detail in there that I——

Q. In substance the—— [388]

A. In substance.

Q. In substance it refers to the extension of the

(Testimony of Blair Burwell.)

Nisley and Wilson toll agreement through the year 1943?

A. And the metallurgical recoveries and other matters in regard to the operation.

Mr. Alioto: We have no objection, Mr. Archer.

Mr. Archer: Offer it as defendants' next in order.

The Clerk: Defendant U's Exhibit "O" admitted and filed in evidence.

(Letter October 12, 1943, G. Donald Emigh to J. W. Hill, w/enclosures, received in evidence and marked Defendant U's Exhibit "O".)

[See Book of Exhibits.]

Mr. Archer: There is just one statement I would like to read. First, in the attachment from Mr. Emigh, United States Vanadium Corporation, as agents for Metals Reserve Company, to Metals Reserve Company, Washington, D. C., Attention: Mr. H. DeWitt Smith, "Subject: Toll Agreement (Nisley-Wilson):

"Gentlemen:"

I will just read one paragraph:

"From our wire of June 30th to you and from conversations in the interim, we have recommended to you that the treatment charges to be paid under this supplemental agreement should initially be the same as [389] those provided for in the toll agreement dated January 6, 1943. We are in this letter hereby reaffirming that our examination of the records of the Nisley-Wilson operation, copies of which have been sent you, indicates to us that

(Testimony of Blair Burwell.)

present toll charges are necessary for the maintenance of this operation. It is our recommendation that these charges remain unchanged at this time."

The second attachment is a letter of the same date, October 12, 1943, from Mr. Emigh to the Metals Reserve Company, Attention: Mr. H. DeWitt Smith, Subject: Nisley-Wilson Vanadium Operation.

"Gentlemen:

"In the August Progress Report on the vanadium operations, three copies of which were sent recently to your Mr. Petterson, it was pointed out that recovery to date in the Nisley-Wilson vanadium mill at Gateway, Colorado, is between 66.30% and 67.80%."

Q. Now, what does that mean, Mr. Burwell?

A. It meant that is the amount of total vanadium in the ore that was recovered in fused oxide.

Q. This is a technical matter or a metallurgical matter, is it? A. Yes.

Mr. Archer: (Reading.) [390]

"The toll agreement of January 26, under Clause 6, provides that the V_2O_5 content of the fused vanadium oxide produced shall not be less than 70.00% of the V_2O_5 content in the ore treated.

"With present recovery figures at hand, it is apparent that the operators of the Nisley-Wilson plant are not making the 70.00% recovery. In our judgment this plant is being handled in an efficient manner and the recoveries being made are

(Testimony of Blair Burwell.)

not out of line with those effected at other vanadium plants in this region.

"We recommend to Metals Reserve Company, therefore, that in the Toll Agreement dated January 26, 1943, in Clause 6, the minimum recovery figure of 70.0% be changed to 6.50%."

Q. And that change was made, was it not, Mr. Burwell?

A. I presume so. I don't know.

Q. Do you recall that the Metals Reserve program was terminated in part at the end of 1943 and the beginning of 1944?

A. I believe that's correct.

Q. And this was pursuant to instructions from the Metals Reserve Company, was it not?

A. That's right.

Q. I now show you a letter—a copy of a letter—it is unsigned—dated December 1, 1943, from Metals Reserve Company, Washington, D.C., to the United States Vanadium Corporation, to which are attached copy of a letter of the War Production Board dated November 22, 1943, H. G. Batchelor, to The Honorable Secretary of Commerce, Washington 25, D.C., copy of a letter from the War Department, Headquarters, Army Service Forces, Washington, 16 November 1943, Major General Lucius B. Clay, to W. L. Clayton, Assistant Secretary of Commerce, and a letter dated November 24, 1943, to Major General Lucius B. Clay, Director of Materiel, Army Service Forces, from W. L. Clayton, Assistant Secretary, and ask you whether

(Testimony of Blair Burwell.)

you can identify those and whether those were your instructions on the termination of the Metals Reserve program?

A. (Witness examining.) I will do the best I can. That's a pretty big order.

Q. I think all the copies are referred to in the top letter.

A. This is a whole string of letters here, apparently, that refer to the authority that created the Metals Reserve program. (Examining.) And I believe that this is in accordance with their structure. I can't identify all these letters of Clay or the rest —It looks like it was in the usual course of business in connection——

Mr. Alioto: If I could see that, we will obviate any question of identification. You won't have any trouble about it, Mr. Archer. [392]

(Counsel examining.)

Mr. Alioto: Do you want to put them all in?

Mr. Archer: As one exhibit.

Mr. Alioto: Well, they are from third parties who aren't here. But we will waive the objection on it, if your Honor please.

Mr. Archer: I believe they are official acts, your Honor.

Mr. Alioto: Well, they are not official acts in that sense.

Mr. Archer: I offer them as defendants' exhibit next in order.

The Clerk: Defendant U's Exhibit "P" admitted and filed in evidence.

(Testimony of Blair Burwell.)

(Group of letters referred to was received in evidence as Defendant U's Exhibit "P".)

Mr. Alioto: This is being offered solely to establish the date of termination, is that it, Mr. Archer?

Mr. Archer: The date and the reasons for the termination and the basis upon which the United States Vanadium Corporation, a defendant in this lawsuit, acted as agent for the Metals Reserve Company.

Mr. Alioto: All right, we have no objection on that basis.

Mr. Archer: Letter dated December 1, 1943, from [393] G. Temple Bridgman to United States Vanadium Corporation, agent for Metals Reserve Company, 30 East 42nd Street, New York, New York.

"Re: Contract AA-92 Grand Junction Program

"Gentlemen:

"This acknowledges your letter of November 19, outlining a tentative program for curtailment of the vanadium program, in reply to our letter of October 20 on the same subject.

"For your information, as our agents under Contract AA-92, we are enclosing a copy of letter from Mr. H. G. Batcheller, Operations Vice Chairman of the War Production Board, to the Honorable Jesse H. Jones, Secretary of Commerce, advising that the War Production Board's interest and responsibility in the vanadium program as to the operation of government vanadium plants at Monti-

(Testimony of Blair Burwell.)

cello, Utah, and Durango, Colorado, and as to vanadium procurement program, has been withdrawn.

"I also enclose an exchange of correspondence between Major General Lucius D. Clay, Director of Materiel, Army Service Forces, and Mr. W. L. Clayton, Assistant Secretary of Commerce, with reference to the possible extension of this program.

"In view of the above, we request that you arrange, if possible, for the cancellation by mutual consent [394] of the Garfield lease and the termination of the Garfield operating agreement, both effective on or before February 29, 1944. In the event that cancellation by mutual consent cannot be arranged, will you kindly advise us promptly and we will take other steps into consideration for cancelling this agreement.

"We are advised that the Nisley and Wilson toll agreement expires on January 1, 1944. We request that you give Nisley and Wilson thirty days' notice that this toll agreement will not be extended beyond its expiration date unless you have reason to believe that this program should be continued in the interest of the procurement of other products than vanadium."

Q. Do you know what other products were referred to, Mr. Burwell? A. Uranium.

Mr. Archer: (Reading.)

"In connection with the present ore production program, in view of Mr. Batcheller's Letter of November 22nd, will you kindly take the necessary

(Testimony of Blair Burwell.)

steps to promptly curtail the purchase of ores which are of interest only for their vanadium content. The details procedure for curtailment of purchases of such ores is a matter for your own judgment, except that we would like such purchases discontinued not later than [395] February 29, 1944, except in such exceptional instances where substantial expenditures for development have been made by the operation. In connection with such latter instances, we would appreciate specific comments and recommendations from your agency before commitments are made to prolong any purchase program beyond February 29, 1944."

Attached to this are several letters, which I shall attempt to read in sequence.

November 16, 1943, War Department, Headquarters Army Service Forces, Washington.

Lucius D. Clay, Major General, General Staff Corps, Director of Materiel, to W. L. Clayton, Assistant Secretary of Commerce, Lafayette Building, Washington, D.C.

"Dear Mr. Clayton:

"Confirming our telephone conversation today, it is necessary to the war effort that the Metals Reserve Company continue operations on a full-time basis at the vanadium plants at Durango, Colorado, and Monticello, Utah.

"It is further requested that the Metals Reserve Company continue the operation of its Vandium Ore procurement under the agency of U. S. Vanadium Company."

(Testimony of Blair Burwell.)

November 24, 1943, from W. L. Clayton, Assistant Secretary, to Major General Lucius D. Clay:

"Dear General Clay:

"I have your letter of November 16, 1943, and in accordance with your request Metals Reserve Company will continue the full-time operation of its vanadium plants at Durango, Colorado and Monticello, Utah and will continue its ore procurement program under the agency of the United States Vanadium Corporation pending the completion of arrangements discussed on November 6, 1943, between War Production Board, War Department and Metals Reserve Company.

"It is our understanding that all the foregoing activity after December 31, 1943 will be for the account of the War Department for the Corps of Engineers, which will complete necessary arrangements with Metals Reserve Company prior to that time.

"As there are numerous operating details to be worked out in order to continue those functions in the manner you wish, it is suggested that the representatives of the Corps of Engineers immediately get in touch with Mr. H. DeWitt Smith of Metals Reserve Company, inasmuch as all such arrangements should be concluded before the first of the year." [397]

Then the letter from H. G. Batcheller, Operations Vice Chairman, War Production Board, to The Honorable, The Secretary of Commerce, dated November 22, 1943 (reading):

(Testimony of Blair Burwell.)

"Early in the war period, as a result of a critical shortage of vanadium, numerous steps were taken by the War Production Board and its predecessor organizations looking toward expansion in the production and supply of this material to meet the needs of the war program.

"Included in this overall program was the erection of two new plants to treat vanadium ores and production of vanadium pentoxide (V_2O_5) therefrom. One of these plants at Monticello, Utah, is a Defense Plant Corporation project, operated by Metals Reserve Company; the other at Durango, Colorado, is the property of Metals Reserve Company, operated for them under an agency agreement. A further arrangement was later made with Nisley & Wilson (Gateway Alloys Company) at Gateway, Colorado, to process certain vanadium ores for the production of vanadium pentoxide.

"As an essential part of the vanadium program, there was also set up a vanadium agency through Metals Reserve Company for a program of developing ore reserves and the procurement of ores for government plants. Two problems have now come up as a [398] result of which it appears necessary to completely alter the responsibilities and functional operation of the entire vanadium program.

"In the first place, the supply-demand situation of vanadium has changed substantially in recent months. It now appears that the total requirement of vanadium can be supplied by those plants which are owned and operated by private industry with-

(Testimony of Blair Burwell.)

out recourse to either of the two government plants referred to above or to the program with respect to subsidized operation at the Nisley & Wilson, Gateway plant.

"In this connection, it is important that the operations at all three of these plants, although previously necessary in the interest of the war program, have been carried out at a loss to the government because of costs involved which were in excess of the price which could be realized for the final product: vanadium pentoxide.

"At the same time, it has developed that the Army is actively interested in this same vanadium program for reasons other than vanadium. This Army program has reached a point where the entire emphasis of the program is now on materials other than vanadium. Under the circumstances, therefore, the program can no longer be considered a vanadium program and it cannot continue to be operated as such, by or under the direction of the War Production Board.

"It is imperative, therefore, in view of the current vanadium situation, in view of the completely changed character and emphasis in this program, and in view of certain other features of the program making a joint or collateral program impossible, that the entire responsibility and operating direction of the vanadium program, including plants and ore procurement be transferred from the War Production Board to the Army.

"This matter has been under discussion for some

(Testimony of Blair Burwell.)

time with the Armed Services and this conclusion was mutually agreed upon by all interested parties, including the Army Service Forces, Metals Reserve Company and War Production Board in accordance with the attached memorandum of a meeting held on November 6, 1943.

"Accordingly, we wish to advise you that the War Production Board's interest and responsibility in the vanadium program as outlined is withdrawn to be shifted, in accordance with whatever arrangements may be made, to the Army, the Army Service Forces, [400] or whatever appropriate division may be designated."

Mr. Alioto: If your Honor please, I believe the first sentence of this letter indicated that it was a reaction of the Metals Reserve Company to a letter from the United States Vanadium Corporation dated November 19, 1943.

Do you have that letter?

Mr. Archer: If we have it we will produce it.

Mr. Alioto: Do you have it. Do you know whether you have it?

Mr. Archer: I do not know whether I have it, but I will look for it.

Mr. Alioto: I would think that is a rather important letter, because everything is a reaction to what they say as to the supply situation of that time, and I would respectfully request an order of the Court that Vanadium Corporation produce that letter of November 19th.

(Testimony of Blair Burwell.)

Mr. Archer: We will be glad to produce it if we have it.

Mr. Alioto: Tomorrow morning?

Mr. Archer: If we have it. I will look for it tomorrow.

The Court: If you have it, produce it.

Mr. Archer: Sure. I have no objection to that. I would object to counsel's statement that this letter is all a reaction to the Metals Reserve letter, because I think the [401] attached letter explains the purpose of the letter.

The Court: The letter speaks for itself.

Q. (By Mr. Archer): Mr. Burwell, I now show you what has previously been marked as Exhibit 1 in the deposition of Robert D. Nininger and ask you whether you can identify this exhibit.

Mr. Alioto: Did the witness write this letter or receive a copy of it, Mr. Archer?

The Witness: I have received a copy of this letter, but I am a little bit concerned, because this is a top secret Manhattan Project, and "secret" had been marked off. It has been declassified. But it does not show the initial of whoever declassified it.

In this particular document, this has something to do with the survey of S-37, which I think I know what it is—I know what it is—and this is addressed to Union Mines Development Company.

Mr. Archer, can you tell me whether or not you have examined this more in detail, that this document pertained to all the Union Mines Development, or only a portion of it?

(Testimony of Blair Burwell.)

Mr. Archer: All of it cannot be declassified. I subpoenaed all of it from the Atomic Energy Commission—I subpoenaed all that could be declassified. And that is what they gave me. You will notice there are deletions in there.

The Witness: I would raise a bit of a question on [402] this document.

Q. (By Mr. Archer): As to whether it can be declassified?

The Witness: Now, for instance, could I ask you, the S-37 resources, does that include resources both in Canada and here, for instance?

Mr. Archer: Just what it says there.

The Witness: What does it say?

Mr. Alioto: Has the witness seen this document before?

The Witness: You say you have cleared this with the government. I was one of the people who used to make these classification stamps on here, Mr. Archer.

Q. (By Mr. Archer): You are familiar with this contract, are you?

A. Oh, my, yes; I lived with it.

Q. You were an officer of the Union Mines Company, weren't you? A. That is right.

The Court: What is your question?

Mr. Archer: I just wanted him to identify the contract.

A. Well, I can identify that there was this contract, yes.

The Court: That is all he has asked. [403]

VOLUME II

TRANSCRIPT OF RECORD

Supreme Court of the United States

OCTOBER TERM, 1961

No. 304

CONTINENTAL ORE COMPANY, ET AL.,
PETITIONERS,

vs.

UNION CARBIDE AND CARBON
CORPORATION, ET AL.

(1)

ON WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

PETITION FOR CERTIORARI FILED AUGUST 11, 1961
CERTIORARI GRANTED OCTOBER 23, 1961

No. 16149

United States
Court of Appeals
for the Ninth Circuit

CONTINENTAL ORE COMPANY, a Partnership, and HENRY J. LEIR, ERNA D. LEIR, LINA SCHLOSS, as Individuals and as partners under the trade name and style of CONTINENTAL ORE COMPANY,

Appellants,

vs.

UNION CARBIDE AND CARBON CORPORATION; UNITED STATES VANADIUM CORPORATION; ELECTRO METALLURGICAL COMPANY; ELECTRA METALLURGICAL SALES CORPORATION; ELECTRO METALLURGICAL COMPANY OF CANADA, LIMITED; VANADIUM CORPORATION OF AMERICA,

Appellees.

Transcript of Record

In Seven Volumes

VOLUME II.

(Pages 417 to 840, inclusive)

Appeal from the United States District Court
for the Northern District of California,
Southern Division

(Testimony of Blair Burwell.)

Mr. Archer: Your Honor, I do not know what procedure you wish to follow, whether you want this taken off the deposition or to remain with the deposition, but I would like to offer in evidence as defendants' next in order, first a letter-agreement dated May 11, 1943, between Union Mines Development Corporation, by Mr. J. R. Van Fleet, president, signed by United States of America by K. D. Nichols, Lieutenant Colonel, Corps of Engineers, Contracting Officer, with the Exploration and Development Contract No. W-7405 Eng-78, signed by K. D. Nichols, or signed by the United States of America, K. D. Nichols, Contracting Officer, and Union Mines Development Corporation, by J. R. Van Fleet, President. And the date of that is the 17th day of April, 1944, effective as of the 11th day of May, 1943.

Mr. Alioto: Have you identified the Union Mines Development Company, as to what that is?

Mr. Archer: I think Mr. Burwell has already testified to that.

The Witness: Yes, I can identify the Union Mines Development Corporation as a company organized by the Union Carbide & Carbon Corporation, and its officers were Mr. Van Fleet, president and director, I was vice-president and director.

Q. (By Mr. Archer): And it operated on the Colorado Plateau, did it not? [404]

A. No; it operated all over the world.

Q. And that included the Colorado Plateau?

A. That is right.

(Testimony of Blair Burwell.)

Mr. Archer: I offer this as defendants' exhibit next in order.

Mr. Alioto: We have no objection, if your Honor please.

(The letter-agreement referred to was marked Defendant U Exhibit "Q" in evidence.)

[See Book of Exhibits.]

Mr. Alioto: I understand you are just offering the document, itself—no portion of the deposition.

Mr. Archer: That is right.

Q. (By Mr. Archer): Mr. Burwell, you mentioned the secret notations on here, and so forth. Those were put on pursuant to government order, were they not?

A. That is right, they were a code designation.

Mr. Archer: This letter, dated May 11, 1943, is a letter-contract between the United States, signed by K. D. Nichols, Lieutenant Colonel, Corps of Engineers, to the Union Mines Development Corporation, dated May 11, 1943 (reading):

"Gentlemen:

"The United States of America, acting through the undersigned contracting officer, has requested your corporation to perform the work hereinafter outlined, and we understand that in the interest of the war effort you are willing to exert your best efforts to perform such work, but it is understood that you make no representation or warranty whatsoever and assume no responsibility or obligation that the work can be successfully performed.

"Accordingly, the United States of America, act-

(Testimony of Blair Burwell.)

ing through the undersigned contracting officer, hereby places an order with you, that you shall with the utmost secrecy and dispatch, and in accordance with instructions of the contracting officer, or his duly-authorized representative, furnish all labor, materials and equipment not furnished by the government, and services, and do all things necessary to cover the work anticipated in a survey of S-37"—and then there is a blank——

——"and the development of suitable processes of beneficiation for such S-37."

Q. (By Mr. Archer): Do you know what S-37 referred to, Mr. Burwell?

A. Yes, sir.

Q. To what did it refer?

A. Uranium oxide, U_3O_8.

Q. And that included uranium found in Colorado, on the Colorado Plateau, in conjunction with vanadium? [406]

A. In connection with vanadium.

Mr. Archer (continuing reading): "Your fee for conducting this survey will be determined by the contracting parties at a future date.

"The Secretary of War finds that it is in the interest of the war effort that this work be not delayed awaiting negotiations of a formal contract, and accordingly you are hereby given formal notice to proceed with the survey.

"It is the understanding of the parties hereto and the intention of this contract that all the work is to be performed at the expense of the govern-

(Testimony of Blair Burwell.)

ment, and that the government shall hold you harmless against any loss, expense (including, but not limited to, expense of litigation), or damage (including, but not limited to, liability to third persons because of death, bodily injury, property injury, destruction, patents, or otherwise) of any kind whatsoever arising out of or in connection with the performance of the work, except to the extent that such loss, expense, damage or liability is due to the personal failure on the part of your corporate officers, or other of your representatives having supervision or direction of the work as a whole, to exercise good faith or that degree of care which they normally exercise in the [407] conduct of your business.

"It is understood that disclosure of information relating to the work contracted for hereunder to any person not entitled to receive it, or failure to safeguard all secret, confidential and restricted matter that may come to the contractor or any person under his control in connection with the work under this contract, may subject the contractor, his agents, employees, and sub-contractors, to criminal liability under the laws of the United States.

"It is understood and agreed that the meaning of the code term, S-37, as used herein, as well as the general aims and procedure to be followed in the performance of the work hereunder, shall be set forth in a secret letter from the government to the contractor dated May 11, 1943, the contents of

(Testimony of Blair Burwell.)

said letter constituting a part of this contract to the same extent as is fully set forth herein. A copy of said letter shall be kept on file in the Manhattan District office."

Q. (By Mr. Archer): Mr. Burwell, did Union Mines proceed to make this survey?

A. We surely did. We carried out both the survey and the investigational processes, and I already testified this [408] is Process C, the process that, we felt, would relieve the Colorado Plateau in the future from responsibility, inhibitions and limitations placed by the vanadium industry. And under this same stipulation I spent, personally, $375,000 for pilot-planning a process that would enable us after the war to get vanadium entirely—uranium entirely free from vanadium. And we had consultations with Lieutenant Colonel Nichols, later General Nichols, Mr. Groves, Mr. Rafferty, Mr. Van Fleet and myself, as to this problem to which I have testified in fragments, at this time, that the future of the Colorado Plateau and the procurement of uranium that we had to have and process, that we would obtain the uranium independent and free of the restrictions of the vanadium industry, and not in proportion to vanadium sales.

And this is the conversation—this is the subject—this is the process that I talked to Mr. Bransome about in the spring of 1947, when I tried to enlist his help for the future of this industry.

Q. That was after this contract was terminated?

(Testimony of Blair Burwell.)

A. That is absolutely correct. I am very glad that you brought this up.

The Court: We will recess at this time until ten o'clock tomorrow morning.

(Whereupon an adjournment was taken until Thursday, June 5, 1958, at 10 o'clock a.m.)

Thursday, June 5, 1958, 9:45 O'Clock A.M.

(The following proceedings were had in Chambers, outside the presence of the Jury)

Mr. Alioto: If the Court please, yesterday we offered certain evidence covering the period prior to January, 1939, in the form of documents.

Mr. Holland: Isn't that July 1, 1938, you are talking about?

Mr. Alioto: The documents were all prior to January 1st.

Admittedly, however, the plaintiff made the contract with the Apex Company in July of 1938. The documents offered yesterday were for the purpose of showing the nature of the agreement in 1938 and 1939 and thereafter, but they were prior to both January 1st and July 1st of 1938.

In that same connection, we would like to inquire of the witness now on the stand, Mr. Blair Burwell, about certain policies, agreements and events which took place prior to January 1st of 1938 but which constitute the origin of the agreements that were in effect from 1938 through 1949 and which explain the nature of those agreements that were in effect for that period of time.

It is the theory of the plaintiff in this case that, by way of example, if we had a lease dated January 1, 1933, which [411] was to run for 15 years. In 1940, some question arose as to what was the nature of the relationship between the landlord and the lessee in 1940, covering events in 1940; I think we would immediately go to the 1933 lease to see the nature of the agreement between the landlord and the lessee.

The Court: If it were a matter between the parties to the lease, yes. Agreed.

Mr. Alioto: So it is on that basis that—in other words, we are now contending, if your Honor please, that the agreements in existence in 1938, '39, '40 and up through '49 had a direct impingement upon this plaintiff.

Now, we propose to show the nature of the agreements by the documents evidencing the origin of these agreements.

Specifically, in connection with this witness, we would like to prove the following facts, and while this may sound like a historical recitation, the fact remains that this witness can probably give it in a matter of 15 or 20 minutes—it is for the period prior to '33, and from '33 on—in a relatively short period of time because he did give this testimony in the Denver trial, in the trial of the United States Government against these defendants, charging a violation of the antitrust laws, for which these defendants were acquitted—this witness, we believe, would testify as follows:

That the operation of the Union Carbide Com-

pany in the field of vanadium can be separated into four different periods of time. [412]

The first was the period in which the Union Carbide and Carbon Corporation, through its wholly-owned subsidiary, the Electro Metallurgical Company, made investments in vanadium mines and facilities for the production of ferro-vanadium, investigated competing sources of vanadium, and established its policy for the long-time production of vanadium alloys, a production which remained in existence from 1938 through 1949, except for such modifications that were forced upon that policy by reason of certain Government regulations and Government statutes.

The initial period extended from 1926, when the United States Vanadium Company—when the Rifle Mill was acquired, to 1933, when this operation was closed and the plant dismantled due to certain stocks of unsold vanadium.

The Union Carbide Corporation entered into the vanadium business in 1926 because it had investigated the uses of vanadium in steel and believed that the markets and consumption of vanadium could be increased. The original plant which was purchased was increased to a capacity of 1,200,000 pounds of oxide annually in 1926, for this reason. They were going into this industry competitively rather than collusively.

There was a meeting held in Colorado in 1936, which this witness attended, the witness being Blair Burwell. The other persons present at that meeting

were Mr. John B. Hufford, the [413] Manager of Purchases of Union Carbide, Benjamin O'Shea, the President of Electro Metallurgical Company, Mr. Giles Meade, the Treasurer of Union Carbide and Carbon Corporation.

No question was raised at that time by the Electro Metallurgical Sales Company as to the ability of the company to sell vanadium produced at the expanded operation, and no question was raised about making any agreements with the Vanadium Corporation of America, restricting either production or sales of vanadium. Specifically, no question was raised at this time about setting up an agreement whereby the Vanadium Corporation of America would be permitted to capture between two-thirds and seventy per cent of the market by agreements with Union Carbide not to reduce the price of ferro-vanadium.

In 1927 and 1928, the witness Blair Burwell, together with Mr. J. R. Van Fleet, who later became President of the United States Vanadium Company, were called upon to recommend to the company the purchase of additional reserves of vanadium ore. The witness was advised by Mr. O'Shea, the President of Electro Metallurgical Company, that the company believed that the merits of the vanadium alloy justified Union Carbine and Carbon Corporation in further increasing their production of ferro-vanadium, and they were desirous of taking the leading position in the production and sales of this metal. At that time, vanadium was the leading alloy used in engineering steels and the

use of ferro-molybdenum or molybdenum in steels [414] was secondary to that of vanadium.

The witness thereupon recommended to Mr. O'Shea, Mr. Meade and Mr. Hufford that the properties on the Colorado Plateau be purchased. As a result of this recommendation, certain mine properties in Montrose County were visited by Mr. O'Shea, Mr. Meade, Mr. Hufford, Mr. Van Fleet and the witness in about 1928, and negotiations for the purchase of these properties were initiated through Mr. John B. Hufford and the witness. However, before making this acquisition, it was decided to make an investigation of the Vanadium Corporation of America's mines in Peru to determine the position of this company to produce vanadium in the future and to determine the competitive effect or the competitive advantage that the Union Carbide companies had over the Vanadium Corporation of America.

Accordingly, Mr Van Fleet made a secret visit down to Peru and came back and reported that the high-grade ore of the Peruvian mines of the Vanadium Corporation of America had been exhausted and that, therefore, the Peruvian mines would not be able to compete with the production on the Colorado Plateau. This fact was, of course, later verified and later admitted by the Vanadium Corporation of America. In fact, the Vanadium Corporation of America stopped shipping from Peru for a long period of time and thereafter had to install a very expensive plant for the purpose

of concentrating the lower-grade ores which they retrieved from the mine in question. [415]

Based upon this knowledge of the favorable competitive position which Union Carbide enjoyed over the Vanadium Corporation of America, a definite policy was agreed upon between the officials of Electro Metallurgical Company, specifically Mr. O'Shea, Mr. Hufford, and the officials of the United States Vanadium Company, Mr. Van Fleet and the witness, Mr. Blair Burwell.

That policy was to acquire a monopoly of the mining areas and control of the entire Colorado Plateau. That policy specifically included a direction that any independent competition of oxide mills should be eliminated and any independent competition from producers or miners should be eliminated. That was a specific policy and a policy which remained in effect in 1938 through 1949, and it was on the basis of that policy that this witness took the steps that he did to eliminate the competition from the Gateway area, the Loma area, the Mesa Vanadium Mill area and others about which he has already testified.

However, one modification of that policy was made in the period from 1933 forward, and that was a modification which included definite agreements between the Vanadium Corporation of America and the Union Carbide Company. Those agreements were predicated upon considerations relating to neutralizing competition in the ferro-chrome field and in other alloys. The evidence of this witness will show that very important policy meetings were

held within the Union Carbide organization between [416] 1933 and 1935. The evidence of this witness will show, together with certain documents, that there were also very important policy meetings held between the officials of the Vanadium Corporation and the officials of Union Carbon.

Taking those one at a time, the witness will testify that early in 1934 a study of the vanadium industry was ordered by the top officials of the Union Carbide Company, and these included Mr. MacQuigg of the Research Department; they included Mr. Priestley of Electro Metallurgical Sales, they included Mr. Dutot, Mr. Critchett, the witness, Mr. Van Fleet and others.

As a result of those meetings, the Research Department was ordered and instructed to prepare a report on the competitive situation in vanadium and to prepare recommendations as to what should be done.

The recommendations of the Research Committee were to lower the price of ferro-vanadium to $2.25, but the Research Committee also set up three alternatives, two of which comprehended cooperation with the Vanadium Corporation of America, and the third of which comprehended straight competition with the Vanadium Corporation of America and no agreements on prices, production or the elimination of competition or anything else.

This matter was discussed by the top officials, the witness will testify, of the Union Carbide Corporation, and it was also discussed between the top

officials of the Vanadium Corporation and the Union Carbide. [417]

As a result of these meetings and as a result of these studies, it was formally decided, against the wishes of the witness and Mr. Van Fleet, to abandon the route of competition and to take the route of agreement between Union Carbide and the Vanadium Corporation of America.

Accordingly, an agreement was made. The agreement comprehended that the Vanadium Corporation of America—the agreement was made as a result of direct meetings between the Vanadium Corporation of America and Union Carbide. The agreement contemplated that the competitive disadvantage at which the Vanadium Corporation of America found itself, because its Peruvian mines had lost their high-grade ore, would be compensated for by United States Vanadium supplying to the Vanadium Corporation of America its requirements of vanadium oxide to produce ferro-vanadium.

The agreement also embodied an undertaking by the Electro Metallurgical Sales to let the Vanadium Corporation of America set the price for ferro-vanadium and to let Vanadium Corporation of America have two-thirds to seventy per cent of the market on ferro-vanadium, and that the Vanadium Corporation of America would acquire some of its supplies from the United States Vanadium Corporation—that is, the supplies of oxide.

The agreement also contemplated that they would cooperate with each other on the price, that they

would respect each other's customers, that there would be no competition, no [418] price competition for customers, and also comprehended that they would act jointly in connection with the elimination of competition either in the production of ferro-vanadium or vanadium oxide.

The witness will testify that in making this agreement the United States Vanadium Company, which was the operating company on mines and the production of oxide, disagreed with the position of the Electro Metallurgical Company, and it was the position of the Electro Metallurgical Company that it met with the approval of the board of directors. The Electro Metallurgical Company at the same time not only produced and sold ferro-vanadium but produced and sold other alloys, including ferro-chrome, which were produced and sold by the Vanadium Corporation of America.

The agreement not to compete was made not only on ferro-vanadium and vanadium oxide, it was made as well on ferro-chrome and the other alloys which the defendants produced and sold in common.

This agreement continued without interruption from 1933 right up to the end of 1938 and was implemented by various acts occurring after January 1st of 1938.

It is again the position of the plaintiff that while the meetings evidencing this agreement were, in fact, held before January 1st of 1938, there isn't any question about it that they nevertheless explain the nature of the agreement which [419] was in effect from 1938 to 1949, and upon that basis we

make this offer of proof, and we offer to prove those facts from this witness, and we believe, if your Honor please, that all of those facts can be proved in approximately an hour—the testimony, in approximately an hour, an hour and a half.

Mr. Holland: The Court has already ruled on this.

Do you wish to hear from me?

The Court: You can make your statement, any statements you want to make.

Mr. Holland: I would like to make the statement, first, that I think Mr. Alioto is very optimistic on the time schedule of proving these or attempting to prove these facts, because it took a great deal longer than that in the Denver case.

Also involved, of course, would be all of the proof that the defendants would have to offer to refute those charges, which they were successful in refuting the Denver case.

As Mr. Alioto has said, these facts were all brought out in the Denver case by this witness, and the defendants offered extensive evidence on these facts, and the decision resulted in an acquittal.

It is the position of the defendants that the Court should properly set a time limit behind which we can't go or this case would be dragged out for a long period of time, and that is particularly true in a case where these issues have already been tried once. [420]

If your Honor wants any authority on this propo-

sition, I have some—I will have to go out in the courtroom and get it.

The Court: I don't care to go into that.

Do you have anything to say?

Mr. Archer: Just one. In addition to adopting Mr. Holland's remarks, I want to say that in regard to this report, which is entitled the MacQuigg report, and the rest of the people referred to in the offer of proof, all of them are now dead, except for Mr. Priestley and Mr. Dutot. Mr. Dutot is no longer employed by the company; he is, in fact, employed by a competitor. Mr. Priestley is the only one who is still alive of all of these people that have been mentioned.

Mr. Alioto: In view of the statement of Mr. Archer, may I supplement the offer of proof, in this respect: We do not agree that the principal parties involved in the making of this policy are dead. We think that the principal person in the Electro Metallurgical Company, insofar as the making of this policy of collusion with V.C.A. was concerned, was Mr. Priestley, who is not dead, who is living, and who, as counsel has already stated in the records of this case, will be in attendance at this trial, and I assume that Mr. Priestley is presently in San Francisco.

Mr. Blair Burwell, the witness, is of course alive. He is on the stand at the present time. So we perceive there is [421] no problem about the question of who is dead or who is alive and, furthermore, we don't think that is material. We think that so far as the corporate acts are concerned and cor-

porate records, that the records speak for themselves.

Furthermore, with respect to the comments of Mr. Holland, that this would take a very long time, I don't think the Denver trial went 10-trial days. Did it?

Mr. Holland: Well, it would take another five days here. I think five of them were devoted to this period prior to '38.

The Court: Well, the Court has heretofore indicated his ruling on this matter. I might state further, though, that this is an action by the plaintiffs and before the plaintiffs can recover in this case, it is necessary to show that they have been damaged by some act of the defendants.

Now, during this period of time, the question prior to '38, the plaintiffs were not even residents of the United States; they weren't here. Their company was organized in '38 and '39, and you have been permitted to ask the witness on the stand what the general policy of the companies, the defendant companies, were in 1938 and '39, and he has testified to that.

The Court has permitted some evidence to go in which might go in to show—you asked him the direct question and he answered that they did this to keep these other people from operating. [422]

Now, the plaintiff in this case must show that he has been damaged by some act of these defendants, not in 1933 and 1935, but in 1938 and '39 and '40.

The offer will be refused, and an exception allowed. [422-A]

(Whereupon the Court and counsel for the respective parties entered the courtroom and the following proceedings were had within the presence and hearing of the jury:)

The Court: At this time the Court desires to make an announcement.

Members of the jury and others interested: The Court will recess tomorrow at twelve o'clock. Some other matters have come up which necessitate the attendance of attorneys elsewhere, and their matters will come up after twelve o'clock. So we will recess at twelve o'clock tomorrow.

There is something about a meeting on Monday, but I do not think that will interfere with this court, will it?

Mr. Alioto: Not so far as we are concerned.

Mr. Archer: No, your Honor.

BLAIR BURWELL

a witness on behalf of the plaintiffs, on the stand at the time of yesterday's adjournment, having been previously duly sworn, resumed the stand and testified further as follows:

Cross-Examination—(Resumed)

Q. (By Mr. Archer): Mr. Burwell, I think yesterday, as I read the transcript on page 333, we were talking about the Dry Valley claims. You answered they were owned by many, many people. This is on page 332. I asked the question: [423]

"In 1938 the Molybdenum Corporation had it?"

And on page 333 the answer is:

(Testimony of Blair Burwell.)

"They have acquired it from Floyd Ackerman."

I believe you said "Floyd Odlum," is that right?

A. That is right.

Q. And on page 343, on an occasion when I was reading from one of the exhibits, I read this:

"In June, 1942, an additional allowance of $1.50 per ton on ore delivered was added to the schedule Attachment 1 in order to meet competition with plants more favorably located to receive ore from south and southwest areas."

You answered:

"That was the Vanadium Corporation plant."

By "Vanadium Corporation" you meant the other defendant, Vanadium Corporation of America?

A. That is correct.

Q. Mr. Burwell, I believe you testified in the administration of the Metals Reserve contracts by the United States Vanadium Corporation, that John Hill handled the affairs from Grand Junction under your supervision, is that correct?

A. Yes. He was supervising engineer, I think was his title.

Q. He customarily made reports to Metals Reserve and to you on the operations of the plant at Durango and at Gateway, did he not?

A. That was part of his duty.

Q. I will show you now a report of the United States Vanadium Corporation, agent for Metals Reserve, for November 30th, but it is dated December 20, 1943, John W. Hill, supervising engineer, Met-

(Testimony of Blair Burwell.)

als Reserve Company, and ask you whether this is one of those reports.

A. That is correct, Mr. Archer.

Mr. Archer: I offer this report in evidence as defendants' exhibit next in order.

Mr. Alioto: If your Honor please, I have not seen the report yet, but I do want to make the observation that up to this point we have not objected on the ground of hearsay, but obviously a statement by a man by the name of Mr. Hill to somebody in Washington was never brought to the attention of the plaintiff, and is a hearsay statement. We are going to object on the basis of hearsay, your Honor. We can get all these reports in for the next ten days, it seems to me.

Furthermore, as of this moment, there has been no evidence that we are claiming any damage from anything resulting from the government program, as distinguished from private action, and I just do not see the relevancy of this evidence.

The Court: Overruled. Exception. This is cross-examination.

Mr. Alioto: Incidentally, did you find that [425] letter yesterday that you were going to look for?

Mr. Archer: Yes.

Mr. Alioto: May I take a look at it while you are putting this in?

The Court: This is a report by Mr. Hill, as I understand it.

The Witness: I presume that is it, your Honor. It is a routine report of the operations of Metals

(Testimony of Blair Burwell.)

Reserve which Mr. Hill made of the mill in the producing of ore and the duties we were to carry out with the government.

(The report referred to was thereupon marked Defendant U Exhibit R in evidence.)

[See Book of Exhibits.]

Q. (By Mr. Archer): Mr. Burwell, I would like to invite your attention to the processing plant report for November, 1943, on the Durango plant, which I have marked with a paper clip here, and the processing plant report on the Nisley & Wilson Gateway vanadium mill dated November 30, 1943.

I think I marked the wrong place. Will the Court indulge me a moment here?

That is right. I believe you testified that the Durango plant was built as a hundred-ton-a-day operation, at a cost of approximately $100,000?

A. That is correct.

Q. Does the page to which I referred you in that exhibit [426] show the cost of vanadium oxide to the government at the Durango plant through November, 1943? A. It does.

Q. What is that cost?

A. The cost per pound of V_2O_5, in the material fused oxide sacked, treated, and dated, was $1.52 per pound, and the cost per ton of V_2O_5 contained in the ore was 62.8 cents per pound.

Q. And the finished product, being the cost of V_2O_5 sacked, is that correct?

A. That is correct.

(Testimony of Blair Burwell.)

Q. If you will turn to the second page, where I have a clip, you will see the same kind of report for the Nisley & Wlison mill, is that not correct?

A. That is correct.

Q. What is the cost for the finished vanadium oxide shown there?

A. $1.65 a pound for the treated to date; $1.55 on the current month.

Mr. Archer: Your Honor, when I finished yesterday I was reading an exhibit that I think has been returned by now. I had finished reading the letter-agreement dated May 11, 1943, between the Union Mines Development Corporation and the United States of America, and attached to that is the final contract dated April 17, 1944, effective as of the 11th day of May, 1943. [427] It has the various recitals, and I will read the pertinent paragraphs. If somebody else wants to read others, they can be read (reading):

"Objectives and Scope—Statement of Project

"The contractor shall, at the cost and expense of the government (see Title II) and in accordance with instructions of the contracting officer, exert its best efforts to furnish all labor, materials and equipment not furnished by the government, and otherwise do all things necessary to determine and evaluate the"——

Then there is a blank——

——"resources of S-37."——

Q. (By Mr. Archer): I believe you testified

(Testimony of Blair Burwell.)

S-37 referred to uranium, did you not, Mr. Burwell? A. That is correct.

Mr. Archer (continuing reading): ——"to make recommendations for the acquisition of the strongest possible control of the production and disposal of such resources as may be accessible and are considered to have commercial value, to make recommendations for suitable methods of exploitation of any such resources as may be found, and to make recommendations for the beneficiation of any supplies [428] of S-37 which may be acquired"——

Q. (By Mr. Archer): What does "beneficiation" mean, Mr. Burwell?

A. Processing in plants to recover the minerals and metals that are in them.

Mr. Archer: It goes on to say (continuing reading):

——"Except as the contracting officer may otherwise direct or approve, the contractor shall conduct the project with the utmost secrecy and dispatch and shall not inform its subcontractors or other outside organizations that any of the project is being performed for the government."

Q. (By Mr. Archer): Through the administration of this contract, Mr. Burwell, it is true, is it not, that you were not permitted to say either that you were acquiring the uranium resources, or that you were acquiring them for the government?

A. I think basically that is correct.

Mr. Archer: Reading from Paragraph 2 (c) on page 3 (reading):

(Testimony of Blair Burwell.)

"When promising deposits of S-37 are discovered or are reasonably believed to exist as a result of the work hereunder the contractor shall make recommendations to the contracting officer for the [429] acquisition of the strongest possible control of the production and disposal of the desired resources. In accordance with such recommendations and to the extent directed or approved by the contracting officer, the contractor shall, as a part of the project, exert its best efforts to acquire (by purchase, staking, filing, refiling or otherwise) claims discovered by the contractor in carrying out the project on all mineral deposits containing or believed by the contracting officer and/or by the contractor to contain S-37 or to contain other mineral deposits of value which the government wishes to own directly or through a governmental agency. All such claims so acquired shall be located, filed or otherwise acquired in the name of the contractor or otherwise as the contracting officer shall direct. The contractor is empowered, upon the direction or approval of, and to the extent authorized in writing by, the contracting officer, to purchase or otherwise acquire for the government or a governmental agency, as the contracting officer may direct, hold in its name or otherwise as the contracting officer may direct, secure or grant leases of, obtain options for rights in, assign, transfer, sell or otherwise [430] dispose of metals, minerals, and ores, lands containing metals, minerals, or ores, and claims or other rights with regard to metals,

(Testimony of Blair Burwell.)

minerals or ores. Such right, title and interest to any property, real or personal, leasehold or option, as may be acquired by the contractor pursuant to this paragraph shall, unless such property shall be abandoned or otherwise disposed of as approved by the contracting officer, be held by the contractor for the government or a governmental agency, as the contracting officer may direct, and be turned over to the government or such governmental agency at the request of the contracting officer, subject to any leases, claims, options or other rights in third parties not granted by the contractor or granted by the contractor with the approval of the contracting officer."

There are various provisions in here for the acquisition of these claims.

Then it goes on to say, on page 5, Paragraph Sub-(f) (reading):

"To the extent mutually agreed upon between the parties hereto, research work for the development of varying processes for beneficiation of S-37 occurrences in many different types of ores, milled [431] products and other products shall be carried on."

Q. (By Mr. Archer): Do you recall when the operations under this contract were terminated, Mr. Burwell?

A. Not too definitely, Mr. Archer. I believe it is in the record. There is more than one contract, Mr. Archer. There is an amendment to that contract. But that is equally pertinent.

(Testimony of Blair Burwell.)

Q. There are actually a good many amendments, are there not?

A. Yes. There is a very pertinent amendment.

Q. (By the Court): When was the final contract terminated, the last contract terminated?

A. I believe, your Honor, about 1945, or maybe early 1946, somewhere in that time—between 1944 and 1946, somewhere in that time.

Q. (By Mr. Archer): Mr. Burwell, I show you now a construction, operation and maintenance report of uranium sludge plants operated by the United States Vanadium Corporation in the Colorado area, submitted by Blair Burwell, vice-president, February 25, 1946.

This has substantially been declassified, your Honor, but is not completely. The one part I wish to show the witness is the part entitled "Historical Outline," which has been declassified. [432] I have made a copy.

Mr. Alioto: Where is the full report, Mr. Archer?

Mr. Archer: Right here.

Mr. Alioto: Do you claim that is classified? If it is, what are you doing with it?

Mr. Archer: I have a Q clearance. You will notice on the historical outline the notation "Secret" has been marked out, and I just compared it with the paper I handed you.

The Witness: Yes.

A. This is one, Mr. Archer,—one of two reports which I wrote.

(Testimony of Blair Burwell.)

Q. (By Mr. Archer): And the historical outline is correct, is it not?

A. Yes, it is correct.

Mr. Archer: Your Honor, I now offer in evidence as defendants' exhibit next in order, the historical outline from Mr. Burwell's report.

The Witness: Let me look once more at this historical outline. I was looking at the main report, Mr. Archer. That is a separated document, and I didn't give it the attention I should have—this one right here. It is the same thing. That is correct.

Mr. Alioto: Who is supposed to have written this, counsel? [433]

Mr. Archer: Mr. Burwell. My secretary typed this up from this page.

Mr. Alioto: Does she have a clearance, too?

Mr. Archer: This page has been declassified.

The Witness: Your Honor, I question that.

Mr. Archer: The page?

The Court: Just a moment.

The Witness: I mean, I have been on the inside of this classification, your Honor, and put these stamps on, and I am familiar to a certain extent with what is classified and declassified, and I think that is top secret. I don't think even anybody with a Q clearance today—and I have one—can go back into that material, because contained in there is the pounds of uranium that went into the atom bomb job. That has a top clearance, and I question it.

(Testimony of Blair Burwell.)

Mr. Archer: Mr. Burwell, I am not offering that. I am offering only the historical outline.

The Witness: It is an open document, and it is not contained in the usual security manner that these documents are supposed to be maintained. They are supposed to be in locked files, and certain people are given the combination to it, and well I know that, Mr. Archer. I am afraid we are getting a bit careless here in the legal interpretations of a very essential project. I wish to go on record saying that. [434]

Mr. Archer: Your Honor, this document was kept until about three weeks ago in the office of the Atomic Energy Commission in Oakland, California. At my request it was sent to the Atomic Energy Commission in Washington, D. C., for classification purposes, and was declassified and sent back to me.

Mr. Alioto: Who marked the word "Secret" off this document?

Mr. Archer: I did.

Mr. Alioto: Do you have authority to declassify documents?

Mr. Archer: I had the authority to take the "Secret" off there when I sent it back.

Mr. Alioto: It is a great system we are living under.

But we have no objection to the document going in.

(The report referred to was thereupon marked Defendant U Exhibit S in evidence.)

(Testimony of Blair Burwell.)

Mr. Alioto: Mr. Archer, is it possible for me to see the one page of the book from which that statement was taken?

Mr. Archer: Certainly. As far as I am concerned this has been declassified. Mr. Burwell disagrees with me.

Q. (By Mr. Archer): You will agree there is nothing classified on this [435] exhibit, won't you, Mr. Burwell?

The Court: Go ahead and see what is in it.

Mr. Archer: "Historical Outline."

I am skipping the first paragraph, which is technical, as I see it (reading):

"In the fall of 1942 officers from the Manhattan District"——

Mr. Alioto: Excuse me, Mr. Archer. It is a very short paragraph and goes back to 1937 and 1938. I would appreciate if you would start from the beginning. It is a very short paragraph.

Mr. Archer: I have no objection (reading):

"Historical Outline

"The complete acid leaching process was operated at Uravan, Colorado, in 1937 and 1938, as a continuous sand leaching process. In this operation the filtering units were constructed of stainless steel and rubber to withstand the acid solutions and the green sludge produced was stored in outdoor filter ponds for later treatment. Various types of mechanical difficulties were encountered in this process and rectangular concrete leaching tanks were

(Testimony of Blair Burwell.)

substituted for the acid-proof filters. This operation was mechanically sound and operated for approximately two years. During this operation approximately 250,000 pounds of U_3O_8 was produced in the form of green sludge. During the same period of operation this sludge was refined in Uravan by the sodium carbonate roasting step and a vanadium and uranium concentrate was produced.

"In the fall of 1942 officers from the Manhattan District discussed with United States Vanadium Corporation officials a possible operation in the Colorado area on the production of a uranium product that could be refined at other plants to produce a desired material. The United States Vanadium Corporation officials felt that many improvements were indicated in the present process, and that approximately six months would be required to develop a more satisfactory method of processing the uranium-bearing sands. Officers of the War Department did not feel that the delay could be made, and requested that the company proceed with the present process in which four pounds of U_3O_8 and five pounds of V_2O_5 were recovered from the sand tailings.

"Construction was started by the Stearns-Roger Manufacturing Company on the acid leaching plant at Durango, Colorado, the acid leaching plant at Uravan, Colorado, and the sodium carbonate roasting plant at Grand Junction, Colorado, in the spring of 1943. [437] The two acid leaching plants started operations in July, 1943, and the Grand

(Testimony of Blair Burwell.)

Junction plant started operations in August of 1943. In order to supplement the production from the acid leaching units, a second plant, belonging to the United States Vanadium Corporation, was put in operation at Uravan in June of 1944. The operations were discontinued on all plants in the late summer and early fall of 1945."

Q. (By Mr. Archer): Now, Mr. Burwell, you have referred to the Metals Reserve Company plant.

Mr. Alioto: Excuse me, counsel. Have you finished reading the document?

Mr. Archer: Yes.

Mr. Alioto: If your Honor please, I have no objection to the Court and the jury hearing anything, but now that has been read I think it is manifestly irrelevant to any issue.

The Court: I did not get your statement.

Mr. Alioto: As I say, I have no objection to the Court and the jury hearing anything, if the Court please, but I think it appears, now that it has been read, that it is manifestly irrelevant, and I would like to make a motion to strike the portion of this secret report that has been submitted on the ground it is not relevant. It simply goes to [438] government operation only, not the private actions this witness testified to.

The Court: Overruled. Exception.

Q. (By Mr. Archer): Mr. Burwell, this report refers to an acid leaching plant at Durango, Colorado, does it not? A. That is correct.

Q. We have previously talked here about the

(Testimony of Blair Burwell.)

Durango plant as being operated by Metals Reserve, have we not? A. That is correct.

Q. And this is the plant which United States Vanadium Corporation exercised its option to buy in 1944? A. That is correct.

Q. In addition to the oxide plant, the vanadium oxide plant at Durango, who operated this acid leaching plant for uranium at Durango?

A. U. S. Vanadium Corporation.

Q. For the United States Army?

A. The same company. Another contract. The same company.

Q. And they were operating that plant prior to the time that the United States Vanadium Corporation exercised its option to purchase the plant, did they not? A. Oh, certainly.

Q. After you exercised the option to purchase the Durango plant you continued to operate, to bring the uranium oxide out [439] of the Durango plant for the United States Army?

A. That is correct; and also vanadium at the same time, in the same plant—vanadium and uranium. They were both produced in the same plant.

Q. (By the Court): For the Army?

A. They were both, your Honor, produced in the same plant—vanadium and uranium.

Q. Yes. But were they produced for the Army?

A. They were produced in one plant, the uranium for the Army, and the vanadium was produced for the Army and turned over to the government as part of the stock pile, your Honor.

(Testimony of Blair Burwell.)

Q. That was after you purchased this from the government? After you exercised your option to purchase?

A. Well, I am just a bit unclear, your Honor, about these exact dates. We get a precise definition of dates here. We acquired the property for the United States Vanadium Corporation in accordance with this telegram that was read into evidence a day or two before, and I think if we refer to that date that we had agreed to purchase, it would clear me from any lack of——

Q. What I am getting at is, you had, under your agreement with the government, an option to purchase? A. That is correct.

Q. Now, you exercised that option. [440]

A. We did.

Q. Then after you exercised that option, did you, when you manufactured uranium and vanadium, was that for the government?

A. My recollection, your Honor, is that that portion of the plant that was producing uranium and vanadium was operated for the government. The other portion of the plant, all connected together, really, was operated for private account, both producing the same materials. It was a bit complicated. I do not think it is really too pertinent. If you want more details I will give it, but I don't think we need to take the time to do so.

Q. (By Mr. Archer): I will show you a letter, Mr. Burwell, dated October 4, 1944, from yourself to the Metals Reserve Company, and ask you

(Testimony of Blair Burwell.)

whether or not you can identify that. Maybe that will set the dates.

A. Oh, yes. Thank you very much.

October 4, 1944, is when we purchased the plant, and I enclosed the check.

Mr. Archer: I offer this in evidence as defendants' exhibit next in order, your Honor.

Mr. Alioto: Do you have any objection to reading the purchase price of that plant to the jury, Mr. Archer?

Mr. Archer: No objection at all. [441]

(The letter referred to was thereupon marked Defendant U Exhibit T in evidence.)

[See Book of Exhibits.]

Mr. Archer: This is a letter of October 4, 1944, to Metals Reserve Company, Washington 25, D. C., Attention Mr. H. DeWitt Smith, Executive Vice President (reading):

"Gentlemen:

"In reply to your letter of September 30, 1944, we are enclosing our check for $86,152.16 in payment for purchase of buildings, machinery and equipment located at Durango, County of La Platte, Colorado, as per bill of sale executed on July 31, 1944, from the Metals Reserve Company."——

Do you want me to read the remainder?

Mr. Alioto: So far as I am concerned you have finished reading the purchase price. I don't care for anything else, unless you want to read it yourself.

Q. (By Mr. Archer): Mr. Burwell, I think

(Testimony of Blair Burwell.)

you previously testified you bought this to keep some outsiders from acquiring it, is that correct?

A. That is correct. [442]

Q. Now, when you exercised the option, you dealt directly with these men at Metals Reserve, did you not? A. Correct.

Q. But there were many business reasons for purchasing Durango, were there not?

A. From purchasing direct?

Q. From purchasing Durango. For purchasing the plant. A. Yes, there were.

Q. To replace it or to build a plant of that type would cost roughly three-quarters of a million dollars at the time you exercised your option, would it not? A. That's correct.

Q. So it was obviously good business to exercise your option to buy the plant, wasn't it?

A. Providing we had the ore supply tributary to the plant to use the three-quarters of a million dollar plant, Mr. Archer.

Q. And at the same time, the Metals Reserve had a large stockpile of ore right at the plant?

A. That's right.

Q. In which you made a contract with Metals Reserve to process that ore for them and deliver the oxide to them, did you not?

A. That's correct. It was a stockpile purchased by the government money that had not been processed when the program [443] had been closed and the government decided to, instead of leaving it in ore that couldn't be used, to turn it into prod-

(Testimony of Blair Burwell.)

uets that could be used. That we did under what we call a toll agreement, so much a pound for the job we did.

Q. Is this the agreement about which you are speaking, Mr. Burwell?

A. I quoted from memory 62½ cents a pound of V_2O_5 that we charged.

Q. This is dated October 13, 1944.

A. (Witness examining) That's correct.

Q. It is a conformed copy signed by Mr. Van Fleet and DeWitt Smith.

(To Mr. Alioto) You have a copy.

Mr. Alioto): We have no objection, Mr. Archer.

(Agreement dated October 13, 1944, by and between U. S. Vanadium Corporation and Metals Reserve Company, received into evidence and marked Defendant Union's Exhibit U in evidence.)

[See Book of Exhibits.]

Q. (By Mr. Archer): Mr. Burwell, do you know where the oxide went which you processed or what disposition was made of the oxide—I think it would be better to say—of the oxide that you processed under this contract in October, 1944, for Metals Reserve?

A. Mr. Archer, I don't recall at this time.

Q. May I suggest, it was sent to the Metals Reserve stockpile in St. Louis, Missouri? [444]

A. Well, it was delivered to the order of Metals Reserve. Wherever it went, I don't recall the town or destination, I don't recall.

(Testimony of Blair Burwell.)

Q. But it wasn't for a private account?

A. It was the account of the Metals Reserve, in accordance with the agreement.

Q. That's right. Now, another reason why you thought it was a good idea to purchase the Durango plant was because it was on a very strategic location, located on the railroad serving this and had potentials for the future, is that not right?

A. That is correct.

Q. It had also had housing available?

A. That's correct.

Q. Are you able to recall how much vanadium oxide you processed for the Metals Reserve under this contract? A. The entire contract?

Q. Yes, this last one? A. This last one?

Q. Yes, just this last one, the one in October '44—in other words, the Durango stockpile.

A. I can give you an approximation. Somewhere around 600-650 thousand pounds of V_2O_5.

Q. Referring again to the telegram, you recall that your [445] letter exercising the option to purchase was dated October 12, 1944?

A. The telegram?

Q. No, your letter exercising the option was October 12, 1944. A. Whatever it is.

Q. Yes. A. I don't have a record here.

Q. I have a copy of that telegram but I don't know the exhibit number of the one——

Mr. Alioto: We can find it.

Mr. Archer: Now I will show you Exhibit 37 and Exhibit T.

(Testimony of Blair Burwell.)

Q. Now, Exhibit 37 is your telegram to Mr. Haldane stating that:

"Brock Advises That Brinker With Sitton and Other Promoters Are Reported to Be Planning to Take the Durango Plant in Case We Do Not Recapture It Stop This Is Rumor Only But Suggest You Advise Mr Rafferty Regards Blair Burwell"

This was dated February 29, 1944, correct?

A. That's correct.

Q. And your letter exercising the option is dated October 12, 1944?

A. The same year, following it, that's correct.

Q. Now, you were also informed at that time that there were other outsiders who were trying to acquire the Durango plant, were you not?

A. That's correct.

Q. One of them was Vanadium Corporation of America, the other defendant here, isn't that correct?

A. Why, I heard a rumor to that — but that wasn't the person that I was referring to in the "promoters." "Promoters" was a code word, Mr. Archer.

Q. To whom were you referring?

A. Is a code word established by military intelligence. If you want me to tell that, you clear it with the Army.

Q. You mean you aren't able to state who the other promoters were?

A. If the Court asks me to do it, I will be very happy.

(Testimony of Blair Burwell.)

The Court: No, I don't think you need to.

A. I don't think it's pertinent here at all.

Q. (By Mr. Archer): Well, isn't it a fact, Mr. Burwell, that one of the reasons you exercised the option on the Durango plant was because the Army requested you to prevent it from falling into the hands of some of these people referred to in the code word "promoters"?

A. There were two reasons, Mr. Archer——

The Court: That doesn't answer his question. Answer his question first and then explain. [447]

A. That was correct insofar as that is concerned.

The Court: One question — it may be in the record. What supplies did you have on hand — were there for any of these defendant companies — when these contracts with the government were concluded? What vanadium did you have or alloys?

A. Insofar as the oxide, your Honor, which I do have some recollection, I think exceeded a million pounds at the time all these contracts were concluded. They were from a million to a million and a half pounds. But shortly after that we closed all our plants because we couldn't dispose of the vanadium we had.

The Court: Now, that belonged to the government at that time?

A. That belonged to the companies, the United States Vanadium Corporation.

The Court: Well, was that during the time that the government was operating?

(Testimony of Blair Burwell.)

A. The government operated up to approximately mid-'43 and then—in about a year and half, your Honor, we were operating under government allocations—and in a period of a year and a half we had filled all the needs of the government, and the government says: We don't need any more vanadium, and the companies were operating from mid-'43 on, producing on their own account and we had accumulated, [448] United States Vanadium Corporation—I don't know how much V.C.A. did—approximately a million and a half pounds of vanadium unsold, around '43.

The Court: What disposition did you make of that?

A. Well, that finally was—we shut down our plants about that time, the Uravan plant went down, the Rifle plant continued to operate; the material laid in our warehouses, we shut all our—dismissed all our employees, men; and on or about 1946 this was disposed of to the Treasury Procurement in accordance with the testimony that I made in regard to Mr. Chaffee and the conversation regarding Mr. Priestley down in Washington.

In other words, we finally sold it to the stockpile, a stockpile agreement, a stockpile which was set up later by the government in anticipation that we might have another war and that they didn't want to be caught short with the lack of vanadium for the future. So they set up, after this, the government, a stockpile program to acquire vanadium in anticipation——

(Testimony of Blair Burwell.)

The Court: What I was getting at: Was this supply that you had on hand offered to the general purchasing public?

A. Oh, yes. Oh, yes. We were anxious to sell it. We were trying to beat every doorbell and sell it wherever we could. [449]

The Court: Would you have sold it and did you sell it to anybody that wanted to buy it?

A. We would have sold it to anybody that wanted to buy it. We were anxious to sell it to anybody that wanted to buy it. If we didn't sell it, we had to lay our men off, four or five hundred men. Sure we wanted to sell it.

Q. (By Mr. Archer): Mr. Burwell, when United States Vanadium Corporation processed uranium oxide for the United States Government, the government purchased the oxide, did it not, the uranium oxide?

A. They purchased a small portion of it, Mr. Archer, and they took the other portion, which was a part of the contract—they paid the cost of the processing and we sold the uranium in the ore unprocessed at 25 cents a pound of recovered U_3O_8. I think that was the arrangement.

Q. They also purchased the vanadium, too, the vanadium oxide that resulted?

A. They purchased the vanadium, not in the oxide that resulted, but the vanadium in the material that entered the plant for the recovery of uranium, at the same price, 25 cents a pound.

Q. Well, I will show you the three contracts

(Testimony of Blair Burwell.)

that I have. The first is W-7405 eng-201, dated September 1, 1943, effective as of June 1, 1943, between the United States and United States Vanadium Corporation. [450]

A. What division of the United States?

Q. This is the Army contract.

A. The Army?

Q. Yes.

Contract W-7405 eng-250, dated June 26, 1944, effective as of July 10, 1943, between the United States and the United States Vanadium Corporation.

And Contract No. W-7405 eng-32, entered into May 12, 1943, effective January 25, 1943.

And ask you whether you can identify these contracts. I think one of these you signed and the others Mr. Van Fleet signed.

(Witness examining.)

Mr. Alioto: Mr. Archer, you won't have to waste time on identification if that is what you are talking about. If you will tell me that they are authentic, we will stipulate to that.

The Witness: Yes, these are all—I can identify them all.

Mr. Archer: Your Honor, these are contracts for the production of uranium and vanadium by the defendant United States Vanadium Corporation with the United States of America. I offer them as Defendant's exhibits next in order.

Mr. Alioto: We don't think they are relevant but we have no objection to them. [451]

(Testimony of Blair Burwell.)

The Court: They will be admitted.

If you gentlemen can agree on something, why, we won't pass it up.

(Contract No. W-7405 eng-201, dated September 1, 1943, effective as of June 1, 1943, between United States of America and United States Vanadium Corporation, received in evidence and marked Defendant Union's Exhibit V;

(Contract No. W-7405 eng-250, dated June 26, 1944, effective as of July 10, 1943, between the United States of America and United States Vanadium Corporation, received in evidence and marked Defendant Union's Exhibit W;

(Contract No. W-7405 eng-32, entered into May 12, 1943, effective January 25, 1943, received in evidence and marked Defendant Union's Exhibit X.)

Q. (By Mr. Archer): This may refresh your recollection, Mr. Burwell. I will read them.

This is the first page:

(Reading Defendant Union's Exhibit V)

"This contract, entered into this first day of September, 1943, effective as of the 1st day of June, 1943, by the United States of America (hereinafter called the 'Government'), represented by the Contracting Officer executing this contract, and United States Vanadium Corporation, a corporation organized and existing under the laws of the State of [452] Delaware,"

and it is signed by Lt. Col. John R. Ruhoff, Corps

(Testimony of Blair Burwell.)

of Engineers, for the United States of America, and by J. R. Van Fleet.

"Article I — Scope of this Contract

"(a) The Contractor shall, with the utmost secrecy and dispatch, furnish and deliver to the Government, f.o.b. Contractor's plant at Uravan, Colorado, for a period of two years and such additional period or periods as the Government and the Contractor may agree upon except as provided under Article 8 hereof, sufficient B containing therein approximately C units of D and E units of F per month."

Do you know what the "F" referred to?

A. Yes, you refreshed my memory. That is just what I told you. The F was vanadium in the ore, not in the—not in any concentrate. This is simply an ore transaction, contained, and has nothing to do with fused oxide.

Mr. Archer: (Reading)

"(b) The Government shall pay to the Contractor the sum of $1.10 per G unit for the D contained in the B and thirty cents per G unit for the F contained in the B."

Do you know what the "B" was?

A. Yes, I do. [453]

Q. That's the sludge?

A. One of the sludges.

Q. And the F refers to V_2O_5?

A. That's right.

Q. Well, at any time did the United States

(Testimony of Blair Burwell.)

Vanadium Corporation process the sludge for vanadium oxide for the United States Army?

A. They did during this period, in accordance with this contract.

Q. In producing——

A. On that part of the sludge that was produced under this contract. Of course, there was sludge produced outside of this contract.

Q. That's right. But I am talking—I am speaking of the sludge produced under these contracts, was subsequently converted into vanadium oxide, the fused black, in other words, for the account of the United States Army, was it not?

A. That's right.

Q. Do you know how many million pounds that was?

A. Approximately one million nine hundred and some thousand pounds.

Q. Close to two million pounds?

A. Close to it.

Q. Returning now to the Union Mines operation in acquiring claims in the Colorado Plateau——

A. Just a minute, Mr. Archer. Are you aware of the fact that that vanadium quantity is directly tied to the uranium quantity that went into the atomic bomb?

Q. This, Mr. Burwell, this figure has already been put into evidence by Mr. Alioto, in an exhibit to which I objected, and to which you——

A. All right. It really has nothing to do with

(Testimony of Blair Burwell.)

this trial, but I just, as a matter of—excuse my interruption.

The Court: None of that is likely to explode around here?

A. Well, it's a dead issue now, your Honor, because all this has currently been released, because we have so much of it. In fact, the miners are worrying that they can't continue to produce uranium for the government right now. So it's really a dead issue at the moment, outside of security for the past.

Q. (By Mr. Archer): In your operations under the Union Mines contract did you come in contact with a man named Major Canfield Hadlock?

A. Hadlock?

Q. Yes. A. I believe so.

Q. Do you remember a Lieutenant Joseph Volpe? A. Joseph Balbe?

Q. Volpe (spelling) V-o-l-p-e. [455]

A. Yes. I think he was a security officer.

Mr. Archer: That's correct.

The Court: We will take about a ten-minute recess.

(Short recess taken.)

Q. (By Mr. Archer): Mr. Burwell, I have a document here, and I am not sure whether you can identify it or not. It is a copy of a letter from Mr. Canfield Hadlock, U. S. Engineers Office, Madison Square Area, New York, New York, May 5, 1944, to the Area Engineer, Colorado Area, Grand Junction, Colorado.

(Testimony of Blair Burwell.)

Were you familiar with the United States Engineers Office, Madison Square Area, New York, New York? A. That is right.

Q. What was there?

A. Well, that is where they got the name "Manhattan District" from. It was an office in New York, one of the sub-offices of the Manhattan District, Army Engineers.

Q. (By the Court): You mean a governmental office? A. That is right.

Q. (By Mr. Archer): I wonder if you can identify this letter?

A. Yes, I identify the letter, and also I furnished the information to Mr. Hadlock.

Mr. Archer: I offer this in evidence as defendants' exhibit next in order.

Mr. Alioto: Now, that is a letter from one government official to another government official, and not to this witness, and not to anybody in the United States Vanadium [456] Corporation?

Q. (By Mr. Archer): Was a copy of that furnished to the Union Mines Development Company, Mr. Burwell?

A. No, not the Union Mines Development Company. They were not involved in this at all.

Mr. Alioto: It is manifestly hearsay, if your Honor please.

Q. (By the Court): To whom was it delivered?

A. This letter was delivered to—let me see the letter, your Honor—this letter was delivered to the office of the Manhattan District in New York City,

(Testimony of Blair Burwell.)

from one of their officers, who I think was also in New York City. This was an inter-office communication between one office and another in the same building.

Q. You say you furnished the information?

A. That is correct. This letter involved matters out West as tailings, and I furnished the information which was the basis of this letter.

The Court: The objection is overruled. Exception.

(The letter referred to was thereupon marked Defendant U Exhibit Y in evidence.)

Mr. Archer: The letter is dated May 5, 1944. It states (reading):

"With reference to Paragraph 1 (e) of your second endorsement, this office concurs with the proposed plan to purchase the 1,000 tons of tailings owned by Mr. Hayes Wilson located at the Gateway mill provided that prior to purchase you investigate and find that the material can be processed in the Colorado plant in spite of the earth content. We presume that your purchase price will be governed by the prices paid previously for the Metals Reserve portion of the Gateway tailings.

"With reference to Paragraph 2 of your second endorsement this office concurs in your recommendations to purchase Blanding tailings for processing at Durango. However, prior to purchase will you please advise this office as to the contents of the tailings and the terms under which the purchase will be made?"

(Testimony of Blair Burwell.)

Q. (By Mr. Archer): Mr. Burwell, did the United States Vanadium Corporation process the tailings from the Gateway mill for the United States? A. It did.

Q. Did they process the tailings from the Blanding mines for the United States?

A. It did. [458]

Q. They also processed the Metals Reserve tailings which were located at the Gateway mill for the United States, did they not?

A. It did.

Q. Do you recall, Mr. Burwell, that the Union Mines Development Corporation, in addition to acquiring claims, also made locations—I mean actually purchasing property—they also made locations on the Colorado Plateau for carnotite and related ores?

A. They probably did. I believe they did in some localities.

Q. Do you recall that in order to conceal the precise nature of this operation, that part of it was done for the account of the Metals Reserve Company, even after they had terminated their vanadium program?

A. I do not recall that detail. It is possible.

Q. I will show you a letter dated July 3, 1944, from the Metals Reserve Company to the Union Mines Development Corporation signed by Mr. Van Fleet, and I ask you whether you can identify that.

A. Yes, I can identify it.

Q. Do you recall this transaction?

(Testimony of Blair Burwell.)

A. That is correct, I do.

Mr. Archer: I offer this as defendants' exhibit next in order.

Mr. Alioto: No objection, Mr. Archer.

(The letter referred to was thereupon marked Defendant U Exhibit Z in evidence.)

[See Book of Exhibits.]

Mr. Archer: Letter agreement dated July 3, 1944, between the Metals Reserve Company, signed by Charles P. Henderson, President, Washington, D.C., to the Union Mines Development Corporation, 30 East 42nd Street, New York, signed by Mr. Van Fleet (reading):

"Reference is made to Exploration and Development Contract No. W-7415 Eng-78, effective as of the 11th day of May, 1943, between the United States of America, hereinafter called the government, represented by the contracting officer.

"In aid of the war effort of said contract you are hereby authorized by us to locate on public domain lands in the so-called Colorado Plateau area, within the States of Wyoming, Colorado, New Mexico and Utah, mining claims containing carnotite and related ores subject to the following conditions:

"All locations shall be made in your own name and shall be made on our behalf, and it is expressly understood and agreed that any and all title acquired by you shall be transferred to our name or to the name of our nominee upon our request. The mining claims located pursuant to this authorization shall [460] be only such claims as you shall be

(Testimony of Blair Burwell.)

authorized to locate by the government acting through the contracting officer as provided in Section 2 (e) of Article 1 (a) in Title 1 of the said contract."

Q. (By Mr. Archer): The contract referred to is the contract in evidence here between Union Mines and the Army?

A. That is correct.

Q. To finish that transaction, Mr. Burwell, I show you a copy of a letter dated May 20, 1947, from Emerson Levinson, Executive Director, Office of Metals Reserve, to Union Mines, attention Mr. J. R. Van Fleet, and ask you whether you can identify that letter. A. I can.

Mr. Archer: I offer this in evidence as defendants' exhibit next in order, your Honor.

Mr. Alioto: We have no objection.

(The letter referred to was thereupon marked Defendant U Exhibit 2-A in evidence.)

[See Book of Exhibits.]

Mr. Archer: This letter is dated May 20, 1947, from the Metals Reserve to Union Mines (reading):

"Reference is made to letter-agreement dated July 3, 1944, between Union Mines Development Corporation and Metals Reserve Company, and to Exploration and Development Contract No. W-7415 Eng-78, [461] effective as of the 11th day of May, 1948, between the United States of America themselves.

"As you know, pursuant to Public Law 109, 79th

(Testimony of Blair Burwell.)

Congress, approved June 30, 1945, Metals Reserve Company was dissolved effective July 1, 1945, and all its functions, powers, duties and authority, together with all its documents, books of account, records, assets and liabilities of every kind and nature, were transferred to Reconstruction Finance Corporation, to be performed, exercised and administered by that corporation in the same manner and to the same extent in effect as if originally vested in Reconstruction Finance Corporation.

"Under date of May 1, 1947, we received a letter from Hon. David E. Lillienthal, Chairman, United States Atomic Energy Commission, informing us the contract was transferred to the Atomic Energy Commission pursuant to Executive Order No. 9816, dated December 31, 1946, and requesting that Union Mines Development Corporation be instructed to transfer to the United States of America those mining claims acquired by it under said contract and held for and on behalf of Metals Reserve Company pursuant to said letter-agreement dated July 3, 1944.

"The Commission is arranging for the preparation [462] of the necessary transfer instruments. Please, therefore, transfer to the United States of America, our nominee, all mining claims acquired by you under said letter-agreement dated July 3, 1944. You will please contact the Atomic Energy Commission, which will prepare the necessary transfer instruments. We are forwarding a copy of this letter to the Atomic Energy Commission."

(Testimony of Blair Burwell.)

Q. (By Mr. Archer): And those claims were transferred, were they not, Mr. Burwell, to the Atomic Energy Commission?

A. They eventually were transferred to the United States Vanadium Corporation.

Q. The Metals Reserve claims? A. Yes.

Q. How was that accomplished?

A. Through the Atomic Energy Commission. In other words, the Atomic Energy Commission took title, and then turned them over to United States Vanadium Corporation as a part of another document that you have not read.

The full story, to answer your question fully, and so there could not be any confusion, the transaction of the acquisition of claims to properties was made under the Army contract. Under that contract these properties were acquired. Later on they were transferred to the Atomic Energy Commission. [463] A related part of the Army transaction was that the United States Vanadium Corporation would have the right to mine or use the claims in the future if they so desired.

Q. For the Atomic Energy Commission?

A. No; for their own account.

Q. Is that what the contract says?

A. That is what happened. The United States Vanadium Corporation today is mining some of these claims.

Q. For the Atomic Energy Commission?

A. Mining them today.

Q. For the Atomic Energy Commission?

(Testimony of Blair Burwell.)

A. No. Well, they are mining for the production of vanadium and uranium ore under a lease arrangement with the Atomic Energy Commission.

Q. That is what I meant.

A. That is correct.

Q. The basic ownership is still in the Atomic Energy Commission?

A. That is correct.

Mr. Alioto: I do not know what you mean by "basic ownership."

Q. (By Mr. Archer): The fee is in the Atomic Energy Commission, and the United States Vanadium Corporation is mining them under a lease arrangement with the Atomic Energy Commission?

A. I think that is correct.

Mr. Alioto: Do you have those leases, Mr. Archer?

Mr. Archer: No, I do not.

Your Honor, you will recall yesterday Mr. Alioto asked me for these letters on the termination. I found the letter referred to in the agreement, and I found one other letter. It indicates there is another letter referred to, October 22, but I do not have that, but these two I will ask Mr. Burwell to identify now.

Mr. Alioto: Where is the one of October 22nd that was an attachment to this?

Mr. Archer: As I say, I do not have it. I may have it at the office. But this is the one you asked for yesterday, November 19th.

Mr. Alioto: That is correct.

(Testimony of Blair Burwell.)

We have no objection to that going right into evidence. You do not have to qualify it. Just put it in.

Mr. Archer: I guess they should be marked separately.

First is a letter dated October 25, 1943, from G. Donald Emigh to J. R. Van Fleet.

Mr. Alioto: I have not seen this one, yet. It doesn't make any difference.

Mr. Archer: And as the next exhibit, a letter dated November 19, 1943, from G. Donald Emigh to Metals [465] Reserve Company.

Mr. Alioto: I have no objection to either one of these letters going in.

(The letter of Oct. 25, 1943, was thereupon marked Defendant U Exhibit 2-B in evidence.)

(The letter of Nov. 19, 1943, was thereupon marked Defendant U Exhibit 2-C in evidence.)

Mr. Archer: The first is dated October 25, 1943, Mr. Emigh to Mr. Van Fleet, copy to Mr. Burwell. Inasmuch as counsel requested these, I will read them in their entirety.

Q. (By Mr. Archer): Would you review again who Mr. Emigh was?

A. He was an engineer employed by United States Vanadium Corporation.

Q. (By the Court): What is the date of this letter? A. October 25, 1943.

Mr. Archer (reading): "On October 14th, Metals

(Testimony of Blair Burwell.)

Reserve Company called me to Washington to discuss a curtailment program on their vanadium operation in Colorado. They informed us that in view of the 'easy' vanadium situation they wished to present at once to War Production Board their recommendations that Metals Reserve Company activities in vanadium be curtailed. [466]

"They asked me whether it would not be advisable to send one of their men such as Mr. Jorelamon to Colorado to investigate the situation and recommend a curtailment program. I informed them I thought this was unnecessary and that we would have no objection to recommending a curtailment program if they so desire. By their letter of October 20th they informed us in writing that they thought it desirable to present to the War Production Board a program of curtailment on the Government's activities in vanadium production. Their letter also stated that they would like us to prepare a recommended outline of the procedure for curtailment.

"It is Metals Reserve Company's opinion, so expressed to me verbaily, in our meeting of October 14th, that they should take steps to stop all vanadium ore purchases and deplete present stockpiles of ore. They are, of course, conversant with the Army's interest in this ore and believe that if the Army wants the production to continue it should make arrangements through the War Production Board either to take over the entire operation of ore buying and ore treatment in Colorado, or make

(Testimony of Blair Burwell.)

special arrangements to have Metals Reserve Company continue its present operations. So far as the Army work is [467] concerned, Metals Reserve Company have no official knowledge or any instructions and must, until this condition is changed, view their operations in the light of vanadium production alone.

"I have written Johnny Hill asking him to prepare a report on how he believes the present vanadium operations should be curtailed, after he has discussed the situation with Mr. Burwell. By the time you have this letter, you will have had access to Johnny's report and will probably have discussed the situation with Mr. Burwell.

"In replying to Metals Reserve Company's letter of October 20th asking for our prompt comments, I have stated that we are giving serious consideration to their request for our recommended program and that you will take the matter up with them on your return from the West."

Exhibit C, November 19, 1943, from Mr. Emigh of United States Vanadium Corporation, to Metals Reserve Company, attention Mr. H. DeWitt Smith, Re: Program for Curtailing Vanadium Production (reading):

"Gentlemen:

"In your letter of October 20th you asked us to prepare an outline of the procedure which we would recommend for curtailing vanadium production. You [468] state this curtailment may be desirable in the near future because of the present favorable

(Testimony of Blair Burwell.)

situation of production to consumption. You indicate that such a curtailment program would involve:

"First: the shut-down of the Garfield operation.

"Second: cancellation of the Nisley Wilson contract.

"Third: cessation of purchases from V.C.A. operated mines.

"Fourth: cessation of purchases from properties operated at a delivered cost in excess of 65 cents per pound of contained V_2O_5 f.o.b. Monticello or Durango.

"Attached to this letter is copy of a report dated October 22, 1943, by our Mr. John W. Hill. Mr. Hill's report is an analysis of the present vanadium ore situation as regards ore purchased for Metals Reserve Company. The report is not a recommended method of curtailment, but shows how a curtailment program could be initiated along the lines requested in your letter of October 20th.

"Our recommended program for curtailment differs somewhat from the four points brought up in your letter of October 20th. We cannot recommend that all purchases from V.C.A. operated mines be stopped or [469] that we cease purchasing ore the delivered cost of which at Monticello or Durango exceeds 65 cents per pound of contained V_2O_5. It is our recommendation that a gradual curtailment program be adopted allowing production of ore to gradually die out as mines become depleted, until monthly purchases are so small that all ore purchases can be finally stopped. Such a

(Testimony of Blair Burwell.)

program would extend over the winter months and probably next summer. It would involve, on our part, the following policy:

"(1) Cease negotiations for new ore purchase agreements.

"(2) Freeze the present ore prices.

"(3) Discontinue all forms of development including diamond drilling.

"(4) Stop making advances against ore production.

"(5) Stop any other form of encouragement such as requesting draft deferment for miners, et cetera.

"The program could be further implemented by

"First, Ceasing operations at the Garfield Mine because the ore is low-grade and distant from Agency plants.

"Second, Cease purchases of roscoelite ores in the Placerville District.

"Third, Terminate the Nisley-Wilson Agreement on [470] January 1, 1944.

"If, in Metals Reserve Company's opinion, a curtailment program must be such as to consummate operations more quickly, we suggest and recommend that all ore producers be given sixty days notice that Metals Reserve Company ore purchasing will cease on a certain date. In this matter all ore producers would be given the same treatment regardless of the existence or non-existence of ore purchase agreements.

"In making the above recommendations we have

(Testimony of Blair Burwell.)

in mind that the ore producers have gone to considerable effort in time, money and work to produce ore which they believed was vital and necessary for successful prosecution of the War and, to the best of our knowledge, they have not made any substantial profits. In view of these circumstances we believe that all ore producers should be treated the same in any curtailment program."

Q. (By Mr. Archer): Mr. Burwell, referring again to the Union Mines operation, you recall, do you not, that one of the large independent owners of uranium and vanadium bearing resources in the Colorado Plateau in the period 1933 to 1946 was a company known as Wade & Curran? [471]

A. Well, I wouldn't qualify them as to size, Mr. Archer. They were one of them. They were not one of the large ones. They were substantial.

Q. They were substantial?

A. That is right.

Q. Over on the Navajo Indian Reservation?

A. That is correct.

Q. Did you participate in the acquisition of the Wade & Curran holdings for the Union Mines?

A. I did. [472]

Q. Were they acquired for Union Mines?

A. They were.

Q. Were they acquired for Union Mines?

A. They were—they were leases, they were not properties—they were leases for the Navajo Indian——

(Testimony of Blair Burwell.)

Q. They were government leases on the Navajo—— A. Yes.

Q. ——Indian Reservation?

A. With the Indians. They were simply leases to work these properties.

Q. And Union Mines acquired those leases from Wade and Curran? A. That's right.

Q. Do you recall the date that this occurred?

A. I don't. It surely is a matter of record somewhere.

Q. Well, I show you a letter dated November 30, 1943, from Paul L. Guarin. I believe you have already identified him.

A. I haven't, but I will.

Q. To Mr. W. G. Haldane, Mr. R. H. Ridgway. Who is Paul L. Guarin?

A. He was a lieutenant colonel in the Engineers, Army Engineers, attached to the Manhattan District office.

Q. Mr. Haldane worked under you?

A. Yes.

Q. Who is Mr. Ridgway? [473]

A. Mr. Ridgway was project manager for the Union Mines Development.

Q. (Handing witness letter.)

A. (Examining). That's correct. I can identify the letter.

Mr. Archer: I offer this in evidence as Defendant's Exhibit next in order.

(Letter dated November 30, 1943, Paul L. Guarin to W. G. Haldane and R. H. Ridgway,

(Testimony of Blair Burwell.)

"Wade & Curran—U.S.V. Deal, Navajo Reservation, Arizona," received in evidence and marked Defendant Union's Exhibit 2-D.)

Mr. Archer: This is a letter from Paul Guarin to Mr. W. G. Haldane, Union Mines Development Corporation, dated 30 November 1943, re Wade & Curran-U.S.V. Deal, Navajo Reservation, Arizona.

"Confirming my conversation with Mr. Burwell and you of November 27th, it is my understanding that some time during the early part of 1943, Wade & Curran obtained a prospecting lease on Navajo lands totalling approximately 186 square miles which included the right to select not more than 900 acres for retention in the form of a mineral lease, which selection must be made and filed of record with the Indian Agency not later than a certain date, on or about 1 December 1943. [474]

"Further, I understand that Wade and Curran obtained the above deal as a result of its being the successful bidder at the Indian Agency's sale—the price bid by Wade & Curran being $1000 cash paid at the time the deal was awarded to Wade & Curran and $4000 cash to be paid on or about 1 September 1943."

It is my understanding that "U.S.V.", that refers to United States Vanadium? A. Right.

Mr. Archer: (Reading)

"Also, it is my understanding that U.S.V. made a sub-deal with Wade & Curran on this property some time during the month of August and previous to the time that Union Mines Development

(Testimony of Blair Burwell.)

Corporation did any work on the property and that the Indian Agency later ratified this sub-deal. The essential terms and provisions of the sub-deal, as I understand it, are as follows: (1) U.S.V. paid Wade & Curran $4000 cash which Wade & Curran in turn paid to the Indian Agency on or before the deadline date in order to comply with its obligations concerning the payment of cash bonus price under the terms of the original deal with the Indian Agency as stated above. (2) U.S.V. obtained from Wade & Curran the right to explore the entire property up to the deadline date, at which time final selection of the 900 acres was to be made, (on or about 1 December 1943). (3) The 900 acres finally selected to be divided—300 acres to Wade & Curran and 600 acres to U.S.V.

"On or about 26 August 1943, and subsequent to the date the sub-deal between U.S.V. and Wade & Curran was made, Union Mines started exploratory work on the property with one field party. A few weeks later the Union Mines' exploratory force working on the property was increased to two field parties and during October the force was still further increased to three field parties. The work being done by Union Mines on the property was inspected by a representative from this office during the early part of November and information so gathered indicates that as of that date, the Union Mines' forces had explored most of the property except a relatively small area on the south end and as a result of this work had discovered

(Testimony of Blair Burwell.)

a number of mineral deposits with attractive possibilities. Also, arrangements were then being made to explore the rest of the property during the latter part of November and before the deadline date for selection of the 900 acres to be retained by Wade & Curran and U.S.V.

"After Union Mines began work on the property, [476] Mr. Van Fleet, on several occasions, advised the writer and his associates about the existence of the U.S.V. and Wade & Curran subdeal and said that the matter when it first came up between U.S.V. and Wade & Curran required quick action which prevented any earlier discussions on the subject. He also said that U.S.V. entered into the deal primarily for the benefit of Union Mines in order to facilitate its work on the Navajo Indian Reservation and suggested that arrangements could probably be made for Union Mines to acquire all of U.S.V.'s interest in the deal by reimbursing U.S.V. for the actual expense it had incurred if it were deemed advisable for Union Mines to make such an acquisition.

"In view of the circumstances as explained in the foregoing and because the deadline date for making the final selection of the 900 acres to be retained has now arrived, it is believed advisable at this time to come to a definite conclusion regarding the property ownership policy matters involved between U.S.V. and Union Mines. Before making such a decision, however, it is necessary to thoroughly consider all of the factors involved, and

(Testimony of Blair Burwell.)

in order to do this it is requested that additional information be furnished to this office . . ."

And he states what information he wants.

Subsequently U.S.V. transferred its interest to Union Mines, did it not, Mr. Burwell?

A. Right.

(Discussion between counsel.)

Q. (By Mr. Archer): I will now show you a copy of a letter from John W. Hill to Mr. Van Fleet, copy to Mr. Burwell, Mr. Emigh, dated October 30, 1943, and ask whether you can identify it.

Mr. Alioto: You don't have to identify that. Just put it in, if you want to.

Mr. Archer: Offer this as Defendant's Exhibit next in order.

(Letter October 30, 1943, John W. Hill to Mr. J. R. Van Fleet, received in evidence and marked Defendant Union's Exhibit 2-E.)

Mr. Archer: This is a letter from John W. Hill to Mr. Van Fleet—I will just read the first and last paragraphs. If somebody else wants to read some more, it's all right.

This is dated October 30, 1943.

Q. And John Hill at this time was directing the Metals Reserve program from Durango, is that not correct?

A. No, he was supervising engineer for Grand Junction.

Q. From Grand Junction?

A. That's right.

(Testimony of Blair Burwell.)

Q. And this was prior to the termination of the Metals Reserve vanadium program, October 30, 1943?

A. I presume so. The date speaks for itself.

Mr. Archer: (Reading)

"Dear Mr. Van Fleet:

"I am herewith submitting a report for your approval and transmittal as requested by H. DeWitt Smith, Vice-President of Metals Reserve Company, on October 20, 1943, concerning the curtailment of vanadium production."

Then I skip.

"The Moab ores contain an appreciable quantity of U_3O_8 and should be transferred to the Durango Plant for this reason. The Wade, Curran ores are also high in U_3O_8.

Q. Those are the ores we have just referred to, is that not correct, Mr. Burwell? A. Right.

Q. And U_3O_8 refers to uranium oxide?

A. That's right.

Mr. Archer: (Reading)

"In the attached report, under Durango Ore Supply, it is stated that F. A. Sitton and North Continent Mines, delivering ore to the Dove Creek receiving station, [479] do not have an Ore Purchase Agreement, and their purchases could be terminated immediately. The loss of these two producers to the Durango Plant would seriously affect the U_3O_8 production as these producers are the principal sources of the U_3O_8 to the Durango Plant at this time."

(Testimony of Blair Burwell.)

The Court: At this time we will recess until 2:00 o'clock.

(Thereupon a recess was taken until 2:00 o'clock p.m.) [480]

Thursday, June 5, 1958, 2:00 O'Clock P.M.

(The witness Blair Burwell thereupon resumed the witness stand.)

Cross-Examination—(Resumed)

Q. (By Mr. Archer): Mr. Burwell, I believe when we finished just before noon I had just read a letter from Mr. Hill in which he stated that the North Continent Mines were one of the suppliers of uranium-bearing ores to the Durango plant, do you recall that? A. I do.

Q. They had been supplying the Durango plant under the Metals Reserve program, had they not?

A. Yes.

Q. Shortly after that, this letter—well, in 1943, then the Metals Reserve program was terminated, was it not, or shortly thereafter?

A. I believe that's right.

Q. Were you aware of the fact that in 1943 that the North Continent Mines had shut down their oxide plant out in Colorado?

A. I believe that's correct.

Q. And weren't you aware of the fact that the reason they shut down was because the Securities Exchange Commission had ordered them to do so?

A. No. [481]

(Testimony of Blair Burwell.)

Q. Didn't you hire Slim Lundquist, who had been operating that plant? A. Yes.

Q. And he didn't tell you then that the reason they closed down was because the Securities Exchange Commission had told them to get out of the oxide business?

A. No, I don't recall that.

Q. Well, you do recall, however, that in 1944 the Union Mines Development Corporation acquired the North Continent properties for the Manhattan project?

A. I knew that distinctly.

Q. I show you a letter dated August 5, 1944, from yourself to Paul L. Guarin regarding this and ask if you can identify the letter (handing to witness).

Mr. Alioto: If it is merely authenticity, you don't have to waste time on that.

Mr. Archer: I offer as defendant's exhibit next in order a letter dated August 5, 1944, from Mr. Burwell to Mr. Guarin.

Mr. Alioto: We have no objection to the introduction of that letter.

The Clerk: Defendant's Union Exhibit 2F admitted and filed in evidence.

(Whereupon, letter dated August 5, 1944, Burwell to Guarin, was received in evidence and marked Defendant's Union Exhibit 2F.)

Mr. Archer: This is a letter dated August 5, 1944, from Blair Burwell, Union Mines Develop-

(Testimony of Blair Burwell.)

ment Corporation, to Paul L. Guarin, Major, Corps of Engineers.

"Proposal for the Acquisition of Property of North Continent Mines, Inc.

"Dear Sir:

"You have been furnished a report on the property of the North Continent Mines, Inc. by W. E. Haldane. This report covers the mining property and improvements of the North Continent Mines, Inc. located at Slick Rock, Colorado.

"This property consists of a well-located group of carnotite mining claims, a mill installation, housing and other facilities more completely listed in the accompanying report.

"On this property, as covered by the report, there is estimated to be 68,250 tons of indicated ore, and 65,000 tons of inferred ore containing .25% U_3O_8. There also exist large, favorable, mineralized areas on which no development has been done but in which we believe additional ore can be developed. The property can be purchased for a cash consideration of $200,000.

"I recommend the purchase of the property for this amount for the following reason: [483]

"The amount of ore indicated and inferred, together with the physical assets justify the purchase price. The property occupies a strategic position in the mineral district and will enable adjoining areas to be acquired and developed economically.

"Request for formal approval for this purchase is made.

(Testimony of Blair Burwell.)

"If the contracting officer, or his authorized representative approves, please so indicate by signing this letter in the lower left-hand corner.

"Yours very truly,

"Union Mines Development Corp.

"Blair Burwell."

Then "Approved for the Contracting Officer (signed) Paul L. Guarin, August 5, 1944."

And pursuant to your recommendation, those properties were then acquired, were they not?

A. That's right.

Q. I believe you have already testified that during the period of the Metals Reserve Company operations that the Calamity and Outlaw claims, which had been mined by Molybdenum Corporation of America and then Brown and Bowman and which you had mined for a year or which U. S. Vanadium had mined for a year, were leased from the trustee in bankruptcy of the old Gateways Alloys Corporation and their proceeds used for the [484] Nisley and Wilson mill?

A. That's correct.

Q. Now, after the termination of the Metals Reserve program, those properties were also acquired for Union Mines, were they not?

A. They were.

Q. And one of the reasons for acquiring these properties was because it was a good engineering and economical thing to do for the Manhattan project, isn't that right?

A. I shouldn't split hairs over definitions in an-

(Testimony of Blair Burwell.)

swering your question, Mr. Archer. There wasn't really an economic reason that had anything to do with the Manhattan District. They were a defense —a bomb job—and they didn't have any economies.

Q. Then good engineering?

A. There wasn't an engineering reason, no.

Q. Well, it was to accomplish——

A. There was a good policy—policy reason—put it that way, for acquiring that. That had to do with the Manhattan District's reason for existence.

Q. And one of the reasons, also, was to keep out some of these "promoters" that you have referred to which the Army did not desire to operate the properties, isn't that correct?

A. It might be loosely termed that way.

Q. Mr. Burwell, I believe yesterday or maybe it was the [485] day before, in your testimony, your previous testimony, you referred to a conversation you had in 1940 with Mr. Strodd and Mr. Fleck of the Vitro Chemical Company. I believe that it is in Pittsburgh? A. Yes, that's right.

Q. And the substance of this conversation was that they had been using fused oxide for some of their coloring operations and you had suggested they use red cake?

A. That is what they advised me they had been using, fused oxide, and I advised them to use red cake.

Q. After that you had a conversation, just following that, with Mr. Dutot and Mr. Ford?

A. That is my best recollection.

(Testimony of Blair Burwell.)

Q. And they had stated to you that the Vitro Chemical Company was a V.C.A. customer, but you nevertheless—— Is that what they said?

A. No. I think I stated that Mr. Strodd and Mr. Fleck stated that they had acquired their fused oxide from V.C.A. But they were a V.C.A. customer.

Q. Well, my question is, as a matter of fact, hadn't Vitro been a customer of Electromet prior to 1940 and hadn't Electromet sold them red cake prior to 1940? A. No, I don't recall.

Q. Well, I show you what has been marked as Plaintiff's Exhibit 16 in this action—— [486]

Mr. Alioto: What are you going to do, what are you going to call his attention to?

A. (Witness examining)

Q. (By Mr. Archer): Notice, Mr. Burwell, this is a list of purchasers of vanadium products from Union Carbide, and I invite your attention to Page 8, the name Vitro Manufacturing Company. You will notice that in the dates of purchase they have an asterisk under the year, and ask you what years are indicated there after "Vitro Manufacturing Company"?

A. (Witness examining)

Mr. Alioto: Counsel, you can read those directly. I have no objection to that. It is in evidence. You can show the years involved.

Mr. Archer: Oh, I'm sorry, Mr. Burwell.

It shows here, Mr. Burwell, that the Vitro—

(Testimony of Blair Burwell.)

that Union Carbide was selling vanadium products to Vitro in '38, '39 and '40.

Does that refresh your recollection as to whether they had been a customer of Union Carbide prior to your visit and talk with Mr. Ford—I mean, with Mr. Fleck and Mr. Strodd?

A. I don't recall sales prior to that. My time and testimony involved a visit there. It could have been they bought small amounts of oxide prior to that. But no great quantity.

Mr. Alioto: That doesn't indicate they bought [487] red cake, though, Mr. Archer, does it?

Mr. Archer: I have here the sales——

Mr. Alioto: Excuse me, your Honor——

The Witness: I think they bought vanadium oxide in sludges—in material in combination with uranium.

Mr Alioto: If your Honor please, I don't think Mr. Archer wants to leave any misimpression here. I think you asked him first whether they in fact bought red cake prior to the time and then you——

Mr. Archer: No; this is my examination, Mr. Alioto.

Mr. Alioto: I understand. I'm going to object, if your Honor please.

The Court: Just a minute.

What is your question? State your question and then make your objection.

Q. (By Mr. Archer): Mr. Burwell, I now show you the sales record of Union Carbide with Vitro Manufacturing Company, showing sales for '38,

(Testimony of Blair Burwell.)

'39 and '40 and later years and the indication of sales of products up at the top (handing to witness). See whether you can identify that.

A. (Witness examining) I can only identify this as a sheet that is apparently taken from some —from the sales of—I can't identify it.

Q. You can't identify that?

A. There is no corporate name on it or reference. [488]

Q. I understand that, Mr. Burwell. You didn't have any direct responsibility for sales?

A. I had nothing to do with that sheet or the sales—I know nothing of it.

Q. And that wasn't your direct responsibility in the corporation?

A. No. I was only the—as I mentioned—in '40, I encountered the market. I didn't make the final sale. That went through Electro Metallurgical Company and probably would appear on some sheet similar to that.

Mr. Archer: I have no further questions of this witness at this time. [489]

Cross-Examination

Q. (By Mr. Holland): Your Honor, we weren't in all of these government deals so my examination will be rather short.

As a matter of fact, there was great competition between Vanadium Corporation and Union Carbide as to who would be the agent for Metals Reserve, was there not?

(Testimony of Blair Burwell.)

A. Yes, there was, Mr. Holland.

Q. And Vanadium Corporation was bitterly disappointed that they weren't appointed the agent or, at least, a joint agent, isn't that correct?

A. Yes, there was a conflict between the two groups as to who would be agent.

Q. And they felt that the agency of Metals Reserve which was secured by Carbide gave them a great advantage, did they not?

A. You mean—speaking of Vanadium Corporation?

Q. Yes.

A. Well, I couldn't testify as to what they felt about it. I think they were disappointed, though.

Q. But that was simply one of the many instances of bitter competition in the west between the two companies, was it not?

A. Now, that's correct, Mr. Holland, insofar as the mining properties goes, there is no other record. [490]

Q. You always considered that you were a bitter competitor of Vanadium Corporation, did you not, when *you running* the West for Union Carbide?

A. I believe—why, sure, sure we were, we were bitter competitors with the U. S.—for the Vanadium Corporation in the acquisition of mines, ore deposits.

Q. Ores, and everything else, is that correct?

A. Everything else, in the field.

Q. In the field? A. Yes.

(Testimony of Blair Burwell.)

Q. And now, who established the ore prices that were paid by U. S. Vanadium?

A. Well, they were originally established, Mr. Holland, as a matter of negotiation, in a few instances some outlying mines to fit the circumstances of length of haul and grade of ore. Most of the negotiations, they kind of grew like Topsy, and finally they came to a definite point of establishment some time later, and I believe my testimony has covered that.

Q. Now, you were Topsy's papa, weren't you? I mean, you—what the prices were were determined by you, isn't that correct?

A. Well, basically so. I think, however, that I gave the formula to Mr. Weston and Mr. Haldane to negotiate any price that would result at that time, that is, the cost of vanadium oxide, for approximately the cost to us of mining similar grade of ore. [491]

Q. But the price you paid was considerably higher than the cost from your own mine, wasn't it?

A. Well, our own mines, scattered over areas of 70 miles north and south, 20 miles east and west, so some of our mine costs were quite high, and some of them were, within a mile of the plant, were quite low, so we had to average those figures a great deal.

Q. But the average of those figures would be considerably lower than what you paid the miners for the ore, would it not?

A. At the start of the period they were pretty

(Testimony of Blair Burwell.)

close to the same figure. At the start of the period we were not buying very much ore and our costs were quite low because we were moving not mined ore but dumps and reserves of pre-mined ore that existed on the surface.

For instance, our costs at the start were approximately $1.50-$2.00 a ton for ore and it simply involved picking up mined ore that had been mined ten years before, moving it into the mills.

So it is very difficult to give you an answer on that unless you tell me precisely what area that you want defined.

Q. Well, is that how you got your 40 cents cost because you were processing ore that had been mined years before and that you weren't charging any mining costs against?

A. Our 40-cent cost, Mr. Holland, in '39 or '38 [492] was based upon the average cost and including what ores had been accumulated from prior years and ores that were currently being mined.

Q. It had the advantage of the prior mined ore then, is that correct?

A. It's probable that they did, yes.

Q. And you made the statement, I believe, before today, that you couldn't have maintained a 40-cent cost on purchased ore, isn't that correct—paying 21 cents for your ore, you couldn't maintain a 40-cent cost, didn't you make that statement?

A. Repeat the question again, please. I am a little confused.

Q. I believe you made the statement today that

(Testimony of Blair Burwell.)

—or yesterday—that paying 21 cents a pound for purchased ore from the miners, you could not maintain a 40-cent cost, that the 40-cent cost was the result of company-mined ore being used?

A. Well, I think that is basically the case.

Q. No, this 21-cent price to the miners—— And when you say "miners" you mean mine owners, don't you? A. Mine owners.

Q. You are not talking about the man that gets in and digs out the ore, necessarily, unless the owner happens to work himself, is that correct?

A. Well, we had leases operating our own properties, which were in between the miner working his own property and the lessor working a small deposit of our own.

Q. But when you talk about miners, you are primarily talking about mine owners or leases?

A. Independent, outside mines.

Q. Independent operators?

A. (Witness nods head.)

Q. And you were paying them in 1940 a 21-cent price, is that correct?

A. I believe that's the record, yes.

Q. I think that is what you told Mr. Bransome, wasn't it?

A. I think that's right. That was approximately the average price, depending upon the grade of ore.

Q. And then you made the statement that the miners complained that they weren't being paid a living wage. Was that a correct complaint, a justified complaint?

(Testimony of Blair Burwell.)

A. Well, I couldn't recall—on the justice of their complaint, or answer your question. That is what they complained about.

Q. Well, do you think they were right in that complaint?

A. In some cases, they probably—they probably were.

Q. In other words——

A. It depended upon the individual circumstance. [494]

Q. Well, do you feel that you were actually—when you were in charge of this ore-purchase program—you were paying the miners less than a living wage?

A. Well, we tried to pay the price that we could buy the ore for.

Q. And you were perfectly willing, being in charge of that program, to pay the miners less than a living wage in order to get cheaper ore, is that correct?

A. We didn't inquire into a living wage when we bought the ore, Mr. Holland.

Q. You didn't care, is that right?

A. Well, we didn't know in a particular case what a living wage was. Probably a great number of these miners that were living in various parts of this country, to determine what each miner's living wage was, was entirely beyond my scope and ability to determine.

Q. And we aren't really talking about wages at

(Testimony of Blair Burwell.)

all, anyway, are we? We are talking about the price of ore?

A. We are talking about the price of ore.

Q. And the question of how much money the particular mine owner made out of the ore that you purchased from him depended primarily on how good ore he had, didn't it?

A. How good ore he had.

Q. And how accessible it was?

A. What the grade was, where it was located, and whether [495] it had been, in some cases, mined, pre-mined ore. There was a great deal of ore that was purchased during this program that had been mined ten years before. Radium, for instance. Therefore, the questions of what it cost was academic.

Q. Then if a man had a good mine, and he was a good operator, he would make money on it, wouldn't he? A. Of course.

Q. You stated that you had a conference in New York with Mr. Bransome in 1940 when he was just starting up Naturita, and you discussed ore prices, what was being paid for ore, is that correct? A. That is correct.

Q. Will you give the exact conversation that occurred as exactly as you can remember it?

A. I don't know that I can give the exact conversation. That occurred 18 years ago. But I can tell you I already testified as to the general conversation, Mr. Holland.

Q. Give it as exactly as you can.

(Testimony of Blair Burwell.)

Mr. Alioto: May we establish the persons present, Mr. Holland?

Mr. Holland: You did in the direct testimony.

Q. Who was present at that conversation?

A. Mr. Bransome, Mr. Van Fleet and myself, and we discussed, as I testified before, the problems of operation, of labor rates, of trucking rates, how much we were paying miners, how much we [496] were paying for truckers, and how much we were paying for ore. Mr. Bransome said he would like to cooperate with us and work out the same basis of payment for these various items, such as labor rates, prices for ore.

Q. Confining yourself to the prices for ore, will you give the conversation on that exactly as you can remember it?

A. I said we were paying approximately 21 cents a pound for V_2O_5 ore based upon two per cent ore amenable to the treatment plants, amenable to the process at the treatment plants, and Mr. Bransome said, "All right," he would follow that price.

Q. What did you say after that?

A. Oh, I think I probably said, "That is all right, fine," or something of that sort.

Q. In other words, there was no agreement then to pay a 21-cent price? No one obligated themselves on either side to do it, isn't that correct?

A. The instances that I told him what we were paying. Mr. Bransome said, "We will pay the same rate," and that is all there was to it.

(Testimony of Blair Burwell.)

Q. There was no agreement made, isn't that correct? It was just a conversation.

Mr. Alioto: If your Honor please, I think an agreement is a legal conclusion. He has given the substance, two competitors discussing prices. I will object on that ground. [497]

The Court: State your proposition again, will you?

Q. (By Mr. Holland): Then you did not agree yourself to pay a 21-cent price, is that correct?

A. I simply stated that this was what we were paying, 21 cents. I did not make any agreement or any formal writing.

Q. That is right. You have answered the question.

In this meeting in 1942 at Dove Creek in the ore-buying situation, I believe you testified Mr. Bransome, possibly Mr. Kett, possibly Mr. Hill, and yourself, were there, is that correct?

A. Yes, and possibly the ore-buying stationer. That is my best recollection.

Q. Pardon me. Going back to the 1940 conversation—I will skip the 1942 for a moment—what was it Mr. Bransome said there?

A. "We can't get enough at this 21-cent price to run our plants, and I am telling you we are going to pay 31 cents."

Q. 31 cents?

A. 30 cents, or whatever it was. I said, "All right, we'll pay the same price."

(Testimony of Blair Burwell.)

Q. He did not ask you to agree to pay the same price, did he?

A. No. It was the same kind of a conversation as the earlier one in New York. [498]

Q. As a matter of fact, the 1942 conference came just after U. S. Vanadium had been appointed agent for Metals Reserve, had it not?

A. I think that is the case because we were at a Metals Reserve ore-buying station, or at least that is my recollection.

Q. Pursuant to that agency, U. S. Vanadium Corporation had been out establishing much higher prices for ore than had theretofore been paid in an attempt to get the marginal ores for the war effort, is that not correct?

A. That is correct.

Q. That necessarily had an effect on the price that was paid by the companies on their own ores, didn't it? A. Most certainly.

Q. And it was as a result of that, was it not, that the price was raised to 31 cents, a direct outcome of that?

A. Well, Mr. Bransome raised the price to 31 cents. I don't know what his thinking was, other than he said he couldn't get enough ore for his plants, Mr. Holland.

Q. He raised it and then you decided you would raise also, is that correct?

A. I said, "We will also raise it to 31 cents."

Q. And the time in 1940 when you had this

(Testimony of Blair Burwell.)

Q. There was no agreement made, isn't that correct? It was just a conversation.

Mr. Alioto: If your Honor please, I think an agreement is a legal conclusion. He has given the substance, two competitors discussing prices. I will object on that ground. [497]

The Court: State your proposition again, will you?

Q. (By Mr. Holland): Then you did not agree yourself to pay a 21-cent price, is that correct?

A. I simply stated that this was what we were paying, 21 cents. I did not make any agreement or any formal writing.

Q. That is right. You have answered the question.

In this meeting in 1942 at Dove Creek in the ore-buying situation, I believe you testified Mr. Bransome, possibly Mr. Kett, possibly Mr. Hill, and yourself, were there, is that correct?

A. Yes, and possibly the ore-buying stationer. That is my best recollection.

Q. Pardon me. Going back to the 1940 conversation—I will skip the 1942 for a moment—what was it Mr. Bransome said there?

A. "We can't get enough at this 21-cent price to run our plants, and I am telling you we are going to pay 31 cents."

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Q. He raised it and then you decided you would raise also, is that correct?

A. I said, "We will also raise it to 31 cents."

Q. And the time in 1940 when you had this

(Testimony of Blair Burwell.)

conversation about the 21-cent price, you were buying very little ore, isn't that correct? [499]

A. A very small proportion of the total ore going into our plants.

Q. Less than ten per cent, is that right?

A. Less than ten per cent.

Q. I believe if you had *had secure* more ore, you would have been perfectly willing to raise your price to get it, would you not?

A. Why, if we needed more ore to fill our plants and to carry out our objectives, we would have paid the price necessary to get it.

Q. That is right. Now, this Dry Valley matter. I realize there has been some unpleasantness about that and I want to avoid that if possible.

A. I hope we can.

Q. I think we can.

A. The only reason I am here at this trial——

Q. I think we can.

The Dry Valley claims you say you looked at as early as 1931, is that correct?

A. That is right.

Q. As a matter of fact, you do not know how early Vanadium Corporation had looked at them, do you?

A. I have no way of knowing that, Mr. Holland. Vanadium Corporation of America was in that field in 1927 examining the properties on the other side. It is possible that they looked at this field at the same time. [500]

(Testimony of Blair Burwell.)

Q. They might even have looked at them before you did, for all you know?

A. Yes. As a matter of fact, I looked at them before 1931.

Q. But you never considered purchasing them, is that correct, until you had determined that you wanted to build a plant at Monticello?

A. We never considered purchasing until we had an economic reason for purchasing them, either a plant at Monticello, or to move ore to Rifle or to Europe.

Q. Your economic reason that prompted you to do it was the hope that you would get a plant at Monticello, was it not?

A. That is correct, fundamentally.

Q. Those claims were peculiarly tributory to Monticello, weren't they? That is, the cost of hauling to Monticello was considerably less than hauling anywhere else, any existing plant?

A. Well, there was no existing plant.

Q. I mean any other plant that existed anywhere, the closest other plant.

A. The closest other plant was Uravan before the Monticello plant, Mr. Holland.

Q. But they were important in the war effort for the operation of a plant at Monticello, were they not?

A. Yes, they were important to the war effort.

Q. And forgetting the unpleasantness that went on at the time, after you had acquired the option to purchase these claims, because of internal mat-

(Testimony of Blair Burwell.)

ters, the Vanadium Corporation was able to obtain the Monticello plant instead of yourself, is that not correct? A. That is correct.

Q. As I say, forgetting the internal troubles between the companies, the Dry Valley agreement eventually resulted in the Vanadium Corporation taking those claims over and paying you your cost, is that not correct?

A. I believe they paid us the cost we had directly in the Dry Valley property, as well as paying us for the vanadium that still remained on the Maggie C. contract.

Q. Yes, but that was a payment under contract, is that right? A. That is right.

Q. So by paying your cost, which as I recall was about $40,000, they were permitted to take them over under the Dry Valley agreement?

A. They were permitted to take them——

Q. Subject to your right to mine them under the Maggie C.?

A. I believe that is correct.

Q. Therefore, in order to get these claims to the Monticello plant for the war effort, this agreement was made, is that correct? [502]

A. State that again.

Q. Primarily to let Vanadium Corporation have these claims so that they could be utilized with the Monticello plant for the war effort, U. S. Vanadium turned them over at their cost, is that correct?

A. Yes, although at that time the plant at Monticello was a Vanadium Corporation plant.

(Testimony of Blair Burwell.)

Q. I am talking about the vanadium—they were turned by U.S.V. over to the Vanadium Corporation?

A. For the Monticello plant of the Vanadium Corporation of America.

Q. That is correct.

A. Because at that time Vanadium Corporation of America plant at Monticello was not planned for a government operated plant.

Q. But that is what it became, did it not?

A. It became that at the request of the Vanadium Corporation of America subsequently.

Q. But it was planned as a supplemental plant to aid the war effort from the very first, was it not?

A. That is correct, that is correct.

Q. And I believe the contract itself shows this thought, because it says,

"Vanadium (which is Vanadium Corporation of America) desires to obtain a larger supply of [503] vanadium ore to enable it to produce vanadium for national defense, and in view of the needs for vanadium of the present emergency, the United States is willing to transfer to Vanadium its rights in said mining claims upon the terms and conditions hereinafter set forth."

Now, who was Arvo Whitaker?

A. He was a consulting mining engineer, Denver, Colorado.

Q. Was he not put in the position of a sort of arbitrator and overseer of what went on in every way on the Plateau in connection with ore-buying

(Testimony of Blair Burwell.)

and so forth, by the government, because, partially, of the bitter competition between U. S. Vanadium and Vanadium Corporation of America?

A. Basically you are right, Mr. Holland. In connection with ore buying, ore acquisitions in plants affected by the Vanadium Corporation of America, Mr. Bransome seldom had some disagreements of procedure.

Q. You always have fought with each other, haven't you?

A. Always—not always, I think——

Q. Well, 90 per cent of the time?

A. That is right. Just good clean competition. However, this was set up, to answer your question, Mr. Whitaker was, at more or less the joint request of both companies appointed to settle the matters of ore distribution to the various government ore, or new ore plants, and he was selected as an [504] independent consulting engineer by the government for that purpose.

Q. And he did an outstanding job, did he not?

A. Yes, he did, as he always does.

Q. Wasn't he considered one of the great engineers of the country?

A. Yes, Mr. Whitaker has a very high reputation, especially in lead, zinc, and other branches of mining. He has very little experience in uranium and vanadium, however. His integrity was unquestioned and his fairness was unquestioned in matters of this kind.

Q. And his assistant, a man named Paige Ed-

(Testimony of Blair Burwell.)

wards, was really doing his leg work for him in the field, is that correct?

A. Yes, and he did also a splendid job. He is working for you at this time.

Q. You have always considered, all the time that you were with U. S. Vanadium, you considered Vanadium Corporation as your principal competitor, did you not? A. Most certainly.

Q. And they were the only competitor you were really worried about, isn't that correct? They were the only ones who really gave you a battle, isn't that right?

A. Well, yes and no. We considered, if you want me to analyze Vanadium Corporation from my viewpoint, as a corporation, it had little or no knowledge of this mining field, but had a strong, a long experience in marketing.

Q. I am talking about your operations in the West.

A. So in the field we felt that they were not formidable at all, as formidable as some of the other companies might be who might have gotten started.

Q. They were the most formidable one you had, though, were they not?

A. Probably so, yes.

Q. And over the years they have proved to be pretty formidable, haven't they?

A. Quite so.

Q. And therefore isn't it a correct statement that when you are worrying about ore claims, oxide,

(Testimony of Blair Burwell.)

falling into the hands of competitors, you were all the time thinking primarily, you and Mr. Van Fleet, of the Vanadium Corporation?

A. Well, it is a broader—no, it was broader than that, Mr. Holland. We had a corporate opportunity, policy involved here in which while we were—we had approximately 90 per cent of the accessible ore deposits and the balance of the ore deposits that was accessible probably rested five per cent with Vanadium Corporation of America and maybe five per cent with what we call independent miners.

Now, we were looking ahead at that time to some time when cost-wise we could put in effect the policy that we [506] had started the field with of selling vanadium at a price to expand its usages to use fully the resources of the field. Therefore, our competition was a double-barreled one: Number one, your company, the Vanadium Corporation of America, had experience and was equipped with processing plants but was poorly equipped at the moment with field knowledge.

Q. It did not have any plant in Colorado until 1940, did it, that is, any operating plant?

A. Well, you had a plant in 1934.

Q. I say an operating plant.

A. You had a plant prior to that in the Placerville District which could have been an operating plant if you had known how to operate it.

Q. But I say it was not operating, was it?

A. Whether it is operating or not, you had the facilities.

(Testimony of Blair Burwell.)

Q. The first time the Vanadium Corporation really came into this field in a serious way was when they opened the Naturita in 1940, isn't that correct? A. No.

Q. I am talking about the Colorado Plateau.

A. I am talking about the Colorado Plateau. I wouldn't regard that as correct, Mr. Holland, from my knowledge of the facts.

Q. What would you say?

A. The first time that you seriously went into this [507] field was in 1934, 1933, when you took over the rare metals plant at Naturita.

Q. I believe that was prior to that.

A. Well, whatever it was. It may be 1932. I guess it was prior to that time. But anyway, in those early times.

Q. We shut that down.

A. You tried to operate it a short period of time.

Q. And then we shut down.

A. You shut down because you couldn't operate it, because you didn't have the ore and you did not have the organization to operate it.

Q. That is correct, and from the time we shut it down until 1940, you were alone in the field there, isn't that correct?

A. Yes, but you had the facilities.

Q. We had the facilities but we were not operating, that is the point I make. From the time we shut the rare metals plant down, whenever that was, until 1940, we did not operate in the Plateau, did we?

(Testimony of Blair Burwell.)

A. Why, you had tried to operate in the Plateau and you were unsuccessful.

Q. That is right, and from the time we were unsuccessful until 1940 we did not operate, isn't that correct, until we started Naturita?

A. That is right. [508]

Q. And during that period you were alone in the field out there, isn't that right?

A. That is right, supplying you with vanadium oxide.

Q. And when you had the policy of buying up claims and trying to produce oxide, wasn't it the Vanadium Corporation of America you were primarily worried about and from whom you were trying to keep the claims and the oxide?

A. We viewed the control—to answer your question more definitely, we viewed the Vanadium Corporation as primarily one of our principal competitors, but we viewed other ownerships of property and other claim owners, independent owners, as potentially more dangerous or more to be considered as a function of our operation in the future than we did Vanadium Corporation of America, because it was obvious the company that had a million dollars worth of plant setting idle in the middle of an area and a yard full of ore, if they could not operate that at that time, were not greatly to be feared insofar as the production went.

But if some operator such as existed before—see, there were five or six operators operating for vanadium prior to that, and any one of those with good

(Testimony of Blair Burwell.)

ownership of ore could have mounted a new plant if they had smart people to do it and knew how to get hold of the mines.

Q. Your answer is very interesting, Mr. Burwell, because I have read you word for word the question I asked you in the [509] Denver case.

Mr. Alioto: Your Honor, I submit that is argumentative. If he wants to impeach him, there is a way of doing that.

The Court: You can ask the question. I see no objection to the question.

Mr. Holland: I read the question word for word from the transcript of the Denver case. Your answer in that case was, "That is correct."

The Witness: It is also correct that you were the principal competitor in this field and one of the big ones, and I also qualified it by saying potentially we regarded other people in the field, old mining areas, undeveloped, such as the North Continent Mines, which had far more ore than the Vanadium Corporation did, or the Gateway area, as potentially important.

Those questions, Mr. Holland, were not asked me, and if you asked me the question——

Q. (By Mr. Holland): I will ask you the question again. I will read it again.

Mr. Alioto: I submit he should not interrupt the witness, if your Honor please.

The Court: It is proper cross-examination.

Q. (By Mr. Holland): I will read you the exact question that I asked you in the Denver case.

(Testimony of Blair Burwell.)

I will read the [510] answer and ask you whether or not that was not your testimony in the Denver case:

"Q. And when you had the policy of buying up claims and trying to corral oxide, wasn't it the Vanadium Corporation that you were primarily worried about, and from whom you were trying to keep the claims and the oxide?

"A. That is correct."

Mr. Alioto: What page is that, Mr. Holland?

Mr. Holland: It is page 615.

Q. Did you or did you not so testify in Denver?

A. I believe that is correct.

Q. Now, Mr. Burwell, I would like to go into this question of this process for producing uranium and throwing away the vanadium that you talked about on your direct examination. I believe it was on December 11th, 1947 that you resigned from the Union Carbide organization, is that correct? A. I think that is correct.

Q. And I believe your testimony was that while you were there at this plant in Grand Junction, which you ran at government expense, you developed a process for extracting the uranium from carnotite and roscoelite ores, throwing the vanadium away in the tailings, is that correct?

A. I wouldn't say throwing the vanadium away in the tailings. [511]

Q. But letting it go into the tailings.

A. Letting it go into the tailings.

(Testimony of Blair Burwell.)

Q. And this you described as an acid leach process, was it?

A. No, no, I described it as a soda leach process, although there is an acid leach process that does the same thing.

Q. How does it compare costwise with the process that extracts—first of all, how does it compare with an acid leach process for the extraction of vanadium?

A. If you will give me a minute, I will give you the exact figures, your Honor. I may take a few minutes because this is a very long paper.

Q. I do not want to take the time, Mr. Burwell.

A. Roughly, with the price of vanadium oxide at 65c, if you gave credit for uranium at a certain price, it was considerably under the 80, 85c a pound cost that I believe existed at that time.

Q. Let me get this. What was it that cost 65c?

A. Sixty-five cents a pound for V_2O_5 would result in the process, providing you gave the credit for uranium at a price, I think, of $8.00 a pound.

Q. Now, this is under your process?

A. That is right. [512]

Q. That is the 65c a pound cost for vanadium oxide?

A. This was not my process. This was the process——

Q. Yes, I understand.

A. ——fathered by the Union Mines, the Manhattan District.

Q. But you had acquired knowledge of it; in

(Testimony of Blair Burwell.)

fact, you had been primarily concerned with developing it, hadn't you?

A. That's right. And basically it is a process used at Anaconda today.

Q. Where is it used at Anaconda today?

A. At the Blue Water plant at Anaconda. They use the soda leaching plant.

Q. Is that the one near Grants, New Mexico?

A. That's right.

Q. That operates on the ores from Ambrosia Lake? A. That's right.

Q. Those ores don't contain vanadium, do they?

A. Yes, they do.

Q. Not in any appreciable quantity?

A. Not in any appreciable quantity, but they do contain some vanadium.

Q. What percentage?

A. Oh, from fifteen hundredths to, occasionally, half a per cent.

Q. In other words, a very small quantity of vanadium in comparison with the carnotite ore?

A. That's right, but still significant.

Q. And that's true of all the ores in the Ambrosia Lake District, is it not?

A. In the main, they are all low in uranium—vanadium.

Q. I'm sorry, I thought you were through.

I believe when you described the Colorado Plateau area, you included the Ambrosia Lake District in it, did you not? A. That's correct.

Q. Did you also include the White Canyon area?

(Testimony of Blair Burwell.)

A. Well, that is part of the Colorado Plateau.

Q. Where is the map?

A. It's right here.

Q. And——

A. White Canyon is right here in—in here some place.

Q. Well, now, this line here does not include Ambrosia Lake, does it? A. Well——

Q. That is in—out to the east?

A. This doesn't say Colorado Plateau. This just states uranium mining districts of Western Colorado, Eastern Utah, Northeastern Arizona, Northwestern New Mexico, so it's not——

Q. I'm not trying to trick you up on the map. I appreciate——

A. This is, this area in black is part—these are simply mining districts, and whereas this map is made by a commercial [514] company, it is not intended to portray the Colorado Plateau.

Q. That's right. I understand. But this is the only map we have.

Now, you did include the Ambrosia Lake area which lies to the east in New Mexico?

A. And geographically it is the same thing. It is——

Q. You included the White Canyon area?

A. That's right.

Q. And you included the Marysvale, Utah area. Would that be in the Henry Mountains division there or close to it?

A. The Marysvale district is not on the drainage

(Testimony of Blair Burwell.)

of the headwaters of the Colorado River, technically, but I think we are splitting hairs whether it is or isn't.

Q. Then Marysvale would be in it and so would the properties around Moab, Utah, the Steen and Pick properties that have become so celebrated?

A. That's right.

Q. Now, those properties that I have named contain very large reserves of uranium, do they not?

A. That's correct.

Q. The Ambrosia field probably contains more reserves than all the rest put together, is that correct? A. Yes, they probably do.

Q. And you say there is a small quantity of vanadium in that ore. In the Marysvale area there is no vanadium, isn't that correct? [515]

A. Marysvale area is a different type of ore, it is not a sedimentary type, to the best of my recollection.

Q. And there is no vanadium in it?

A. No, I don't think so.

Q. That is true also at the White Canyon area, is it?

A. That's true of certain mines in the White Canyon area.

Q. And that would be true of the Happy Jack——

A. Happy Jack, it's true, but there are other mines in the Mare's Tooth, the Cottonwood—which is roughly called the same district—they do contain vanadium.

(Testimony of Blair Burwell.)

Q. In other words, the Happy Jack ore is a copper-uranium ore?

A. The Happy Jack is a special mine, a deeper formation, that carries copper.

Q. A very good one? A. A very good one.

Q. And Steen and Pick, they had a small amount of vanadium, didn't they, in their mine?

A. Well, sometimes they had quite a lot. Some of the ores would run up as high as one per cent.

Q. But typical of the properties I have named, they run high in uranium and very low in vanadium, isn't that correct?

A. High in uranium and low in——

Q. And very low in vanadium.

A. Well, relatively low in vanadium—low and high in lime, [516] which affects the process.

Q. And your process, the process used, you described as particularly adaptable to that type of ore, isn't it? A. Yes, that's correct.

Q. Because you can throw away the vanadium and forget about it.

A. Well, it puts the vanadium in the tailings or in a form that could later be recovered, if necessary.

Q. And if you are operating on a carnotite ore body which runs very high in vanadium and comparatively low in uranium, almost universally the vanadium is kept, is precipitated as a separate product, isn't it?

A. Well, not always. Some of the ores of the Colorado Plateau in the uranium area that's being

(Testimony of Blair Burwell.)

mined for vanadium also, some of those ores are high in lime and have to be treated by a soda ash process—soda ash leaching.

Q. But primarily most of the mills operating on carnotite ores save the vanadium and save it still, don't they?

A. Well, there are—all of them are saving the vanadium, either in tailings or——

Q. I mean in finished product.

A. Yes, that's right.

Q. That is true of the Climax Uranium Mill, isn't it? A. That's true.

Q. Where is that located? [517]

A. Grand Junction.

Q. And, as a matter of fact, you personally superintended the construction of that mill, didn't you? A. That's right.

Q. And didn't you acquire some claims for Minerals Engineering, your corporation acquired some claims around the Calamity group?

A. We did.

Q. In that area?

A. There and other places.

Q. And they are the claims that went in and formed the basis of the Climax Uranium Company?

A. They are some of the claims.

Q. Some of the claims? A. Yes.

Q. And for that you obtained or your company obtained a very substantial interest in the Climax Uranium Company?

A. We obtained a small interest in it.

(Testimony of Blair Burwell.)

Q. About 25%, wasn't it, originally?

A. Originally.

Q. And you were in charge of the construction of that plant, is that right? A. That's right.

Q. And you didn't see fit to put this process in that plant, did you? [518]

A. No, because the ores we had available in that part of the area were low in lime and did not require the soda process.

There are two processes, either of which will recover the vanadium or the uranium head, one or the other. Both processes were patented and turned over to the Climax Uranium Company.

We used either one or the other, depending upon which type of ore we had. If the ores happened to be high in lime, we couldn't use the acid process. If they were low in lime, which they have predominantly, we treated selected ores; we used the acid process.

Q. And produced vanadium oxide, isn't that correct? A. And produced vanadium oxide.

Q. And sold it to the trade and sold it to the stockpile?

A. And to the Vanadium Corporation of America.

Q. And to the Vanadium Corporation of America, is that correct? A. That's correct.

Q. Then isn't it a fair statement that—well, I guess you have already made the statement. I won't go into it again.

Now, since leaving Climax Uranium Company,

(Testimony of Blair Burwell.)

you have again gone into the vanadium business and are a substantial competitor of these defendants, isn't that correct?

A. In the United States?

Q. Well, in the world. [519]

A. Oh, I wouldn't regard it so, Mr. Holland. I think you are overly complimentary. We have, again, a smaller interest in a company that is owned partially by English capital and is shipping into—the company is shipping into European markets.

Q. Aren't you shipping it to the United States also?

A. No, we are not shipping it to the United States.

Q. Are you planning to?

A. No. Never. I don't think we can, on account of the tariff.

Q. Are you in production yet?

A. Yes, we are in production.

Q. Well, I don't want to ask you any business secrets, but you are actually now a competitor in the vanadium business, isn't that correct?

A. Well, competitor of Vanadium Corporation?

Q. Yes.

A. That's a bit complimentary, but when you are dealing with Europe, you are in competition with the Finnish people, the Southwest African people; you are in competition with Norway that is producing vanadium. In Europe, it is only your excess vanadium that is disposed of over there, that you can't sell in the United States.

(Testimony of Blair Burwell.)

Q. But that sometimes make a difference between profit and loss, doesn't it?

A. I wouldn't know. That's your end of the business. [520]

Q. Do you use Mr. Leir and his company as one of your sales agents?

A. No. He is not—he has no financial connection.

Q. You have no business dealings with Mr. Leir of any kind? A. That's correct.

Q. Is that correct? A. That's correct.

Q. When I say you, I mean your South African subsidiary company.

A. That's absolutely correct. I have no personal or company connection, financial or otherwise, with Mr. Leir, excepting for the fact that I think Mr. Leir owns some stock in our little company.

Q. Oh, he is a stockholder in you?

A. A small stockholder.

Q. Mr. Leir, and the Rockefellers, also, aren't they?

A. No. Thanks for the compliment. I don't think the Rockefellers are.

Q. I thought they were. I'm sorry.

A. No, they are not.

Q. Well, now, going back to December, 1947, you went first to Mr. Marks Hirsch, is that correct, with this proposition?

A. You are speaking of this conversation in early '47?

(Testimony of Blair Burwell.)

Q. I thought you said December of '47, after you left Union Carbide. [521]

A. Well, I think it was in the—I think I stated that it was probably in the first of '48 when that happened.

Q. Yes, you said December of '47 or January of '48.

A. January, '48. I think it probably was January of '48. Let's see, maybe I can refer to (examining documents). I think it was just prior to January 22, 1948.

Q. You went to see Marks Hirsch, President of Molybdenum Corporation of America, is that correct? A. That's right.

Q. And will you describe in your own words the proposition you made to him?

A. Yes. I knew Mr. Hirsch, of course as you know, a long period of time in connection——

Q. I don't know Mr. Hirsch.

A. ——in Dry Valley and other vanadium properties, and I explained to him that we were facing a difficult time to the future in regard to the Atomic Energy Program, but that we had prepared as a result of a research program first started by Carbide, taken over by the Manhattan District, to devise a process that would take the vanadium out of the ore first—the uranium out of the ore first and then leave the vanadium in a residue to be turned back for process, and recovered by the owners of the ore; that I had discussed and reported on this matter to the Atomic Energy Commission

(Testimony of Blair Burwell.)

and to our own company previous to this, and that this was part of a project [522] that we had carried on, this war effort. It wasn't particularly my—all my contribution; we had dozens of engineers working on this, including the Union Carbide and Carbon Research Corporation.

Q. And Government people also?

A. And Government people also, observing the operation and the test work.

And it appeared that the only way that we could compose the warring differences of the vanadium industry and prevent a limitation of uranium production in the future was to get some operator of a plant or a central plant who was independent of either the Vanadium Corporation of America or the U. S. Vanadium Corporation, because we had got to the top of policy determination, both internal within the Union Carbide and apparently with other people, and that it was necessary for somebody who didn't have an interest to act fairly for everybody in the field, and that I had thought and recommended the Molybdenum Corporation of America might be a good company to do it.

Q. Pardon me, Mr. Burwell. To whom did you make that recommendation? A. Marks Hirsch.

Q. To whom did you make the recommendation?

A. Of this——?

Q. Of Molybdenum Corporation as being the logical operator?

A. I believe I did that to the Atomic Energy Commission [523] prior to——

(Testimony of Blair Burwell.)

Q. Were you acting as sort of a representative of the Atomic Energy Commission in an endeavor to put——

A. No, I was simply called in at that time—at the time that the Atomic Energy Commission was being formed, to submit recommendations and plans for the development of the Colorado Plateau.

Q. And this was one of your recommendations?

A. That was one of my recommendations, and the same recommendation had been conveyed to Mr. Rafferty and Mr. Van Fleet before. I think I had some correspondence.

Q. But you made this recommendation to the Atomic Energy Commission, is that correct?

The Court: At this time we will take a 10-minute recess.

(Short recess taken.) [524]

Q. (By Mr. Holland): Mr. Burwell, is it a correct statement that at the time you approached March Hearst with this proposition you were more or less acting in accordance with the instructions of the Atomic Energy Commission?

A. No, I was really acting on my own in this connection. I was carrying out recommendations, however, of the Union Carbide, and my group in Union Carbide—Mr. Rafferty, Mr. Van Fleet, and myself—had previously conveyed to the Manhattan District as a solution of this particular problem.

Q. Who owned this process?

A. As it exists now, nobody owns it.

Q. Who owned it then, in 1947?

(Testimony of Blair Burwell.)

A. Nobody owned it.

Q. Was it a perfectly open and public process?

A. That is correct.

Q. Everybody knew about it?

A. That is correct. Well, I wouldn't say everybody knew about it.

Q. Had it been published?

A. I couldn't say. I don't think so.

Q. If you have a reasonably high vanadium ore wouldn't it be better to produce the finished product under your process than just to put it in the tailings and leave it there?

A. That would be true, if you could dispose of your [525] vanadium in a finished product. But here is the problem that confronted us, Mr. Holland: that at the time in 1946 that I was talking about we had completed most of the Manhattan District job and the bomb job. In other words, it had become an accomplished fact. And in order to make the bomb succeed and to fill the pipeline that was required at Oak Ridge and at Hanford, it took so many million pounds of uranium metal, far beyond the capacity of the Colorado Plateau or any other mining district to produce currently at that time. But because there had been a 20-year accumulation of uranium ores from the mining of vanadium, not only here, but in Shinkolobwe, Africa, the jungles of Africa, where they had left the area, and up in Canada at the El Dorado Mine, which was shut down, and the same thing was true of the mines in the jungles of Africa—they were shut

(Testimony of Blair Burwell.)

down and full of water when we started this project—we accumulated and harvested 20 years of mining and got enough uranium to fill the pipeline, without which we never would have succeeded in the Atomic Energy Program.

Now, therefore, it took approximately, oh—I am a little cautious on security on this thing—so many million pounds a year to continue the program of sufficient size to make sure that we would survive in the time of danger following the war. In other words, we gathered in all the 20 years of past stuff, the bomb was finished, the Manhattan District [526] had taken its hat off the hook and walked out the door, and there was confusion about the future policy of this field. We knew that if we returned to the problem of producing uranium as a part of vanadium, and the question you just asked, Why don't you produce the vanadium directly?—if we produced the uranium that came from the vanadium in tune with the vanadium market sales, which we were afraid of, we would have approximately, from the vanadium sales limitation, we would have approximately one-tenth of the uranium that we needed to survive as a nation after this war.

Therefore,—and that was an essential part of our Manhattan District job—we had to prepare for a future program on this Colorado Plateau independent of the companies' interest, independent of the Vanadium interest, independent of Mr. Leir's interest, independent of the thinking of Mr. Bransome, or even myself. And we prepared a program

(Testimony of Blair Burwell.)

of getting uranium in the future independent of the vanadium industry.

Well, if the vanadium industry found a way to sell their vanadium by reducing the price, and the cost of mining of the ore and the grading of it and the hauling into the plant was borne by the government for uranium, and only that amount of vanadium was produced as the market would absorb, obviously we had a safe formula for the future.

Now, here was the place, Mr. Holland,—and you have [527] asked me the question, and I will try to answer it——

Q. I hope you will, sir.

A. ——this way: that we had to devise a method, whether the ores were rich or lean in vanadium, that we would only produce the amount of vanadium that would be sold according to the economics of the situation, so that the uranium would be divorced from the vanadium business, and the security of the country would also be divorced from the quarreling between the vanadium companies, or the inter-quarrelings of vanadium policy.

That was the reason I was requested to go down to Washington by Senator Johnson and Senator Milligan, both of whom I know personally, as you do, because we both live in that State, and Senator Johnson asked me to go down and talk to Admiral Strauss, and one of their engineers called Hugh Kaiser, who is now head of the Academy of Science —Hugh Kaiser was the engineer assigned the job with Union Mines Development Company for the

(Testimony of Blair Burwell.)

secret Manhattan job, and as it appeared we were going from the Army job into the newly-formed Atomic Energy program, it was essential that the Atomic Energy people would have the proper counsel from the experience of the Manhattan District, and background as to the limitations of this field in regard to the uranium process.

At that time, with my knowledge and experience of 22 [528] years with this company, the Carbide Company, I believed there was in existence an arrangement that limited the sales on the market of vanadium.

Now, irrespective of the business reasons behind it, or whether it was for some other dollar consideration than ferro-chrome, this matter had suddenly become bigger than either Carbide or Mr. Hearst or your Mr. Bransome, or anybody, and therefore I was beginning to despair at this time that we would be able to convey to the Atomic Energy Commission the urgency of understanding the situation, so that their newly-formed policies would not be channeled into a restrictive and a small production of uranium in tune with and in proportion to vanadium markets.

Thereupon started the real drama of this situation, and here is the real problem where the whole thing developed.

So the meeting with Mr. Hearst was—followed a meeting at which I had resigned on December 11th, but they had not accepted it.

On December 22nd I had a meeting in Washing-

(Testimony of Blair Burwell.)

ton, and I think I have a reference in a memorandum here that I can give you about that meeting. I didn't particularly name the Molybdenum Corporation of America, but would you like me to read it?

Q. I don't know. Let me see it.

A. Anyway, it is dated. [529]

Q. If you can tell it, why don't you tell it?

The Court: How is that material to the issues in this case?

Mr. Holland: I do not think it is, your Honor, but he went into it on direct.

The Court: All right.

Mr. Holland: I do not believe we need to take the time. I think you described it well.

The Witness: Thank you.

Q. (By The Court): One thing I would like to ask you, Mr. Witness: From 1944 to 1947 what was the general condition of the mining business in this Colorado Plateau?

A. The vanadium mines were shut down. Thousands of men were thrown out of work. We had lots of vanadium we could not sell, and apparently there was the same restrictive policies of pricing and marketing that prevailed at that time, as far as my knowledge is concerned.

Q. Was there any demand for the material?

A. We believed there was, if you would go out and make the price—reduce the price so that you could sell the vanadium in competition with other alloys.

(Testimony of Blair Burwell.)

Q. Was that condition general over the nation?

A. The general situation over the nation at the end of the war, we were just adapting our economy from war to peace [530] time, and really it was the start of the boom. Our automobile companies were just getting under way, and they were using a lot of metal. I think you could say there was plenty of market there if you went out and tried to get it. I think you can always sell something if you have something that is worthwhile selling and you have the proper price.

Q. What I want to know is, in this territory down here, now, that you are speaking about—the Colorado Plateau—what was there in that period from 1944 to 1947 that indicated a desire to control the production of vanadium?

A. What was there that indicated a desire to control the production? I would say that the price of vanadium had not been reduced—and yet that is not the answer you have asked me.

Q. Well, you state now that these mills had an enormous supply on hand, and they had to shut them down. Was there a demand for the production?

A. As I stated, your Honor, there was a demand for the production if the price was reduced so it could compete with other alloys. That was my opinion on it.

Q. (By Mr. Holland): Now, actually, when did Uravan start up again?

(Testimony of Blair Burwell.)

A. I believe about 1949, or 1948. We shut down from 1944 to 1949, about three or four years.

Q. Naturita ran during that period, didn't it?

A. Naturita ran. Naturita had a market, I believe. They would not have run if they didn't.

Q. And between the stockpile and the Korean War which came on there was a tremendous demand for vanadium, wasn't there?

A. Up to 1946 there was a good demand for vanadium, but Union Carbide and the Metallurgical Company were not selling any of it.

Q. It was being sold, wasn't it?

A. I presume it was being sold, yes.

Q. It was being sold into stockpile?

A. Well, the stockpile is a different consideration, Mr. Holland.

Q. That is for the national security, isn't it?

A. Well, that is looking ahead in the future, but it is not a matter of current need.

Q. In case we have war?

A. Looking ahead for another war.

Q. The Atomic Energy Commission had charge of the procurement of uranium in building up uranium supplies for the country, did they not?

A. They started, I believe, in 1947, with their first procurement of uranium.

Q. And they did a very good and pretty successful job of it, did they not? [532]

A. Beginning about nineteen—at first there was a great deal of argument about that.

Q. But they did. Do you want to answer the

(Testimony of Blair Burwell.)

question? Did they, or did they not, do a good job on it?

A. I don't think they did a good job up until about 1950, and from then on they did a splendid job.

Q. You know, do you not, that the Climax Uranium, and the Vanadium Corporation, and the Union Carbide, cooperated fully with the Atomic Energy Commission in order to make that program a success?

A. No question. From 1950 on they all cooperated, and it is the greatest field in the world today, and it is a great achievement. Prior to that, no.

Q. Do you have any letters in connection with this conversation——

Mr. Alioto: May I have the last part of that answer read?

(Answer read by reporter.) [533]

Q. You said 1950, didn't you, Mr. Burwell?

A. That's correct.

Q. Instead of nineteen——.

Have you any letters or correspondence in connection with your conversation with Mr. Bransome in December of 1947?

A. I have a letter—I have a letter which refers to that, which was written on January 22, 1948, which mentions that conversation.

Q. Written by whom?

A. (After examining document) Written by me to Mr. H. D. Kaiser of the Atomic Energy Commission, Washington, D. C.

(Testimony of Blair Burwell.)

Q. May I see it, please?

A. (Handing document to Mr. Holland) The first part is personal matter. The last paragraph is pertinent to this.

Q. You would rather I not read it?

A. Well, you can——

Q. I won't if you don't want me to.

A. Go ahead, go ahead; you might just as well. The previous page, the last paragraph, Mr. Holland.

Q. Pardon me?

A. The previous page, the last paragraph.

(Discussion between counsel.)

Mr. Alioto: I put a document in evidence for you. I would like you to put it in. You remember, I put in a couple for you. [534]

(Further discussion between counsel.)

Mr. Holland: I don't think—of course, I don't think this is material to the issues in the case, and I am not going to put it in as my own exhibit. If you want me to put it in as yours——

Mr. Alioto: If you put it in as my exhibit, I will be very happy to claim it as my exhibit. I would appreciate if you would read that portion of it to the jury, or let me do it.

Mr. Holland: I will glad to.

Mr. Archer: One minute. I would like to take a look at it (examining document).

I guess it wouldn't be offered against us, anyhow. It was after he left us. I take it it isn't offered against us.

(Testimony of Blair Burwell.)

Mr. Holland: This is a copy of a letter——

Q. (By Mr. Holland): Where would the original of this letter be?

A. I wouldn't know. It was written to Mr. Kaiser. Probably at the Atomic Energy Commission. He was the one that arranged—he was one of the men arranged for me to talk to.

Mr. Holland: Will you mark this as plaintiffs' exhibit.

What do you want to do about the personal part of it?

The Witness: Well,——

Mr. Holland: I won't read it to the jury. [535]

The Witness: Just mark off the first paragraphs.

Mr. Alioto: I assume we can substitute a copy, taking anything out that is personal. We can make arrangements between ourselves, Mr. Holland.

The Clerk: Plaintiffs' Exhibit 58 admitted and filed in evidence.

(The letter referred to was thereupon marked Plaintiffs' Exhibit No. 58 in evidence.)

[See Book of Exhibits.]

Mr. Holland: This is a letter to Mr. H. D. Kaiser from Blair Burwell, dated January 22, 1948. It says (reading):

"In the main there does not seem to be much question as to the engineering approach to the problem of processing the carnotite,"——

Q. (By Mr. Holland): You were talking about carnotite ore here, is that correct? A. Yes.

Mr. Holland (continuing reading): ——"but most

(Testimony of Blair Burwell.)

of the questions revolve about the disposal of excess vanadium. In this connection I had an interesting talk with Ted Bransome as a result of a casual meeting which developed into a brief discussion of the western situation. I told Ted that I believed that vanadium could be produced at a by-product price of 65 cents per pound of V_2O_5 from a [536] properly engineered plant with the economies of such a plant, and at the same time would produce uranium for the government at a much lower price than is being considered now. While the price of 65 cents per pound of V_2O_5 would be a Godsend to V.C.A. in view of their present 85-cent cost, the principal concern of T.B. was the possibility that this material would also be available for open market sale at the same price, which might enable competition to enter the ferro-vanadium field by way of Continental Ore or other competitors. The price which I have suggested on my chart at 65 cents is a price better than the more favored cost to either of the two companies when producing at their present sales rate. I think it is going to be difficult to compose the warring interests of the vanadium industry, and that it is going to take a diplomat of the first water to take care of the reasonable interests of the vanadium industry and set aside the ever-present monopoly question which is cited in the present monopoly suit."

Q. (By Mr. Holland): By that you are referring to the suit that was pending in Denver, Colorado? A. Yes. [537]

(Testimony of Blair Burwell.)

Q. In which these defendants were acquitted, is that correct? A. That's correct.

Mr. Holland (continuing reading): "I have a feeling that John Gustafson will be equal to the job. One point of interest here is the apparent feeling among those of our corporation"——

Q. (By Mr. Holland): By that you mean Union Carbide? A. That's right.

Mr. Holland (continuing reading): ——"that we should lean backwards if possible in assisting the Commission in its development of the District, rather than crowd the ills and needs of the vanadium industry into the picture at this time.

"King Haldane sends his best regards to you with the hope that he will see you out in this country soon."

Q. (By Mr. Holland): Well, as a result, the Atomic Energy Commission then took charge of the situation, is that correct?

A. Well, they had taken charge of the situation before that, and this was a conversation in the formative period of the Atomic Energy Commission policy.

Q. And they adopted policies encouraging the search for [538] and the development of uranium, is that correct? A. No.

Q. No? I don't want to get into a collateral matter too much.

A. Do you want another document? I can give you their policy report here.

Q. What is the date on that?

(Testimony of Blair Burwell.)

A. December 17, 1948.

Q. O. K.

A. This is a public advance for release. The statement of John K. Gustafson, the manager of the raw material operation, U. S. Atomic Energy Commission, at a press conference in Denver, Colorado, December 17, 1948.

That was at a Rotary Club meeting. I was present.

Q. Who was Mr. Gustafson?

A. He was manager of the raw material division of the Atomic Energy Commission at that time. Shortly afterward he left.

Mr. Lillienthal was also present at this meeting.

Mr. Archer: What was that last name?

Mr. Alioto: Lillienthal—David Lillienthal.

A. (Continuing) And then this paper, which is an amazing one in view of the record,—in view of the record that we had millions of tons of ore which the Manhattan District would procure—I won't trouble to read you all of it, but I will [539] read the pertinent place.

It says (reading):

"Following the war it was tentatively decided by the Manhattan District to purchase only by-products of uranium, rather than stimulate and support increased production by special incentives. This position was based on the fact"——

he says, which is obviously untrue (continuing reading)——

(Testimony of Blair Burwell.)

——"that the known uranium reserves of the Colorado Plateau were limited, expensive to mine and process, and the only advantage of an accelerated program would be to make this limited supply available sooner. Since the estimated annual production of the Colorado Plateau under the accelerated program would be small in relation to total U. S. requirements in supplies available from foreign sources, it appeared more economical to obtain the vanadium as a by-product from vanadium operations which are geared to the vanadium market."

Now, in view of the fact that already there were documents in the possession of the government, that there was ten years ore supply of uranium available in that area immediately, that this area had produced the essential part of the atomic bomb, this meant that we had lost the battle in so far as freeing ourselves from this program. [540]

Q. (By Mr. Holland): But that was not the ultimate result, was it?

A. No. The ultimate result is a brief I wrote for Mr. Millikan at the Blair House meetings, which is right over there. And if you would like to have that—we might as well introduce the whole thing.

Mr. Alioto: Do you want to put that in evidence?

Mr. Holland: No, it's too long.

The Witness: That has been declassified.

Mr. Alioto: Sure you don't want to?

The Witness: This was requested of me at the

(Testimony of Blair Burwell.)

Joint Session of the House Committee Atomic Affairs Meeting, at the critical Blair House meeting when the U. S. Government was asked to give its atomic secrets to Britain, at the time Fuchs was in the British Atomic Energy Commission, on the plea that there was no uranium in the United States.

Now, until that time I had stayed on the sidelines. I had resigned from the company. And we were much concerned. And Sunday night, at my home in Grand Junction, Mr. Millikan rang me up and told me that there was a meeting in which—that the security of the country was involved—call it the atomic crisis—it was in the headlines—and I wrote that secret brief in which I revealed the whole relationship of the background of this district, the need for uranium production in the future, the result of which was that Mr. [541] Lilienthal eventually lost his position, the Atomic Energy Commission was reorganized; and your company and the Carbide Company, and all of us, now look at a great amount of uranium. Compared to this we have more uranium than in any other part of the world exists. And when you look at the record today, at this time, that this district is the greatest supply in the world that we have; more than for security, we have everything for power. And you look back at this — they said there was little uranium in this field. You could see how dangerously we skinned along the edges of national survival when some of this fumble-stumble guess went in this matter of natural resources.

(Testimony of Blair Burwell.)

That, Mr. Holland, is my story.

Q. It is true, is it not, that these two defendants contributed very considerably to the success of the uranium program? A. Afterwards.

Q. They have? A. Afterwards.

Q. Have they not?

A. Afterwards. However, at this time, the reason that Mr. Van Fleet turned these papers over to the government was that he, as a corporate officer, was big enough, and thought enough of the Union Carbide Company to keep a few men in the Carbide who might have got the corporation into trouble by [542] going ahead with restricted policies in this field, because obviously, if they had followed this policy—and that was dictated, as I was quite sure, by the vanadium interests, advisers to the Atomic Energy Commission at that time—that if that had happened Carbide would have been blamed severely by the public, if it found out that we were in a national crisis and we had no uranium simply because somebody valued dollars more than they did their patriotism.

Q. But that isn't what happened?

A. That didn't happen. It didn't happen just because these things were written.

Q. Because of what you did?

A. I wasn't the martyr in this thing, nor was I the only one, Mr. Holland. There were a lot of engineers who lived in that field just the same as I did, and they all contributed. That's right.

(Testimony of Blair Burwell.)

Q. And these companies contributed, did they not?

A. Oh, unquestionably, your company, Mr. Holland, the Vanadium Corporation, has done a splendid job since that time. I think they did a splendid —the time before that. I have no criticism of the integrity of your people. I don't think you knew the background of what was going on. And I can say that the Carbide, itself, as a whole, is — the great corporation did a splendid job during the war, and the fact that a few people almost got ahold of policies which might have been [543] destructive at the moment doesn't necessarily damn the Carbide Company. Today they are one of the big factors in this field. They only have about 17 percent of the field, and they lost a corporate opportunity that is worth billions to them.

Q. In other words, if they had taken this opportunity they would have controlled this field, is that correct?

A. Well, they could have largely, and, of course, by that same token, if they had controlled the field, if they had done it fairly, if they had done it unselfishly, if they had done it with an eye to their public trust, it would have been good business. I don't think they ever would have been indicted for monopoly on it.

Q. In other words, you believe in the paternal monopoly? A. What?

Q. You believe in a sort of paternal monopoly?

Mr. Alioto: If your Honor please, whether he

(Testimony of Blair Burwell.)

believes in paternal monopoly, I think is aside from any question here.

The Court: I don't know what he means by it.

Mr. Alioto: I don't, either.

Mr. Holland: I don't, either.

The Court: I don't think anybody else does. I am sure the jury doesn't.

A. I believe the matters that are before this Court, the matters of vanadium markets in the past, are more or less [544] dirty dishes that pretty much have to be cleaned up as you go along. I think they are to be regretted. They did exist, and I apologize to the Court if I have taken too much of your time to tell you this story. I thank you very much for not interrupting.

Q. (By the Court): Now, was there any reason why this vanadium that you had on hand from '44 to '48—it could have been sold at the price they wanted for it, couldn't it?

A. It could have been sold at a price and made a profit if the Carbide Company would go after it.

Q. No, that isn't my point. Was there a demand for that vanadium during that period?

A. Well, I believe so.

Q. Well, now, if there was a demand for it and you had plenty of it why wasn't it sold — why couldn't it be sold? A. Your Honor,——

Q. Was it on account of the price?

A. Your Honor, the Electro Metallurgical Company was making no effort to sell it because the customer was the Vanadium Corporation of America.

(Testimony of Blair Burwell.)

Q. Was anybody making any effort to buy it? That's the point.

A. Well, I think they would make some effort to buy it, if somebody would come in and say, "Well, here, we would like [545] to sell you some vanadium. We will give you a good deal and make you a little less price; it's a little better stuff."

Q. I know. Did anybody come around and say, "Here, I need some vanadium and I want to buy it"?

A. Well, I don't think it is handled that way.

The Court: No, I don't think so, either.

Go ahead.

Q. (By Mr. Holland): Mr. Burwell, you say you were not engaged in any business transactions with Mr. Leir at all?

A. That's correct, we had no financial relationship.

Q. Have you had a financial relationship of any kind?

A. Well, I believe, now, that Mr. Leir bought a note of Climax Molybdenum on the market. We possessed Climax Molybdenum uranium note.

Q. What do you mean? A. Six percent.

Q. What do you mean, bought on the market?

A. Well, we had the note. We were trying to sell it to raise some money because our tungsten mines were shut down the other day, and he is a stockholder, and he offered to buy the note because he had some money. We discounted the note. I think it was two hundred and some thousand dollars. And

(Testimony of Blair Burwell.)

he bought the note. We were offering it to other people at the same time. It pays six percent interest. As far as I am [546] concerned it was purely a commercial transaction.

Q. He bought the note from you recently at a discount, is that correct?

A. I think it was a year ago.

Mr. Holland: That is all.

Redirect Examination

Q. (By Mr. Alioto): Mr. Burwell, I want to first take up the Court's question to you about whether or not anybody was trying to make an effort to buy vanadium from you at the time that there was excess vanadium around to be sold. I believe your answer was that nobody was trying to make an effort, is that it?

A. Well, I don't believe anybody was making an effort to sell it. I think that there was a market existing for vanadium. People were trying to buy vanadium, yes.

Q. How about Continental Ore Company and Mr. Leir, were they trying to buy vanadium during this time of excess, from you and from Vanadium Corporation of America?

A. I understand so. I believe they were trying to buy ten or fifteen thousand pounds a month. I think that's here in some of these letters.

Q. (By the Court): When was that? What date? A. In this period.

(Testimony of Blair Burwell.)

Mr. Alioto: I will establish it, if your Honor [547] please.

Q. (By the Court): What date?

Mr. Alioto: I have an exact date on that.

Q. (By Mr. Alioto): I show you a letter marked —I show you Plaintiffs' Exhibit 42 in this case. It is, first, a letter to your organization, Electro Metallurgical Company, November 17, 1943.

Your Honor will recall that this is a month after the document put in by Mr. Archer this morning saying that the supply was now easing, or that supply and demand had worked itself out.

November 17th of 1943 the Continental Ore Company wrote to your corporation and said (reading):

"We would appreciate your offering us 10,000 to 15,000 pounds of V_2O_5 contained in fused vanadic acid per month. We would be ready to sign a contract with you for a fixed length of time."——

Mr. Archer: I object to this — I object to the question.

Mr. Alioto: I haven't asked the question, yet.

Mr. Archer: I thought you had finished.

Mr. Alioto: I haven't asked it, yet.

Mr. Archer: When you finish, let me know.

Mr. Alioto: I don't do things like that around [548] here. I don't know what would happen to me.

The Court: Go ahead.

Q. (By Mr. Alioto): On November 30th, or 13 days later, that letter not having been answered, Continental Ore Company wrote again to your company and said (reading):

(Testimony of Blair Burwell.)

"Gentlemen:

"We have not as yet received a reply from you to our letter of November 17th of which we enclose a copy, since the original may have gone astray. We would very much appreciate hearing from you regarding this matter at your earliest convenience."

And your company replied—November 30, 1943—apparently it had crossed in the mail, unless it was delivered by hand—apparently crossed in the mail, and said (reading):

"Continental Ore Company,

"Mr. Henry J. Leir.

"Gentlemen:

"Referring to your inquiry for fused vanadium oxide, in view of the many uncertainties prevailing at the present time we do not feel we should undertake supplying your regular requirements for this material."

Now, my question to you is, at the time that this request was made of your company, and your company turned it [549] down, did you hear anything inside the organization as to why they wouldn't supply the Continental Ore Company, when they had—when the supply and demand situation on vanadium oxide was not tight? That's the question.

Mr. Archer: I object to the question on the ground the statement is without foundation. He said it was written to his company. It is clearly to the Electro Metallurgical Company. Mr. Burwell has testified he was never an officer or an employee of any company but the United States Vanadium Corporation. [550]

(Testimony of Blair Burwell.)

Q. (By Mr. Alioto): Well, let me just establish some things on that, then. You testified to a number of meetings with Mr. Priestley, Mr. Haggerson, Mr. Sneath, and Mr. Rafferty.

A. That is right.

Q. Were those people connected with the Electro Metallurgical Company? A. They were.

Q. They were the chief managing agents, weren't they? A. They were.

Q. And when you had the meeting of the board of directors that you testified to in 1946, when you and Mr. Priestley had the row about producing uranium, was Mr. Priestley at that time an officer of Electro Metallurgical Company? A. He was.

Mr. Archer: I object to the question. His testimony was it was not a meeting of the board of directors, but a meeting of some executives.

The Witness: They were also directors.

Q. (By Mr. Archer): Was it a meeting of the board of directors?

A. They were both directors and executives, Mr. Archer.

Q. (By the Court): Was this a meeting of the board of directors, or was it just a director or officer talking individually? [551]

A. The executive committee of executives; vice-presidents of the corporation were also directors of the corporation at the same time. They did not call the meeting as a directors' meeting; they called the meeting as a budget committee meeting, technically.

Q. (By Mr. Alioto): And then, in connection

(Testimony of Blair Burwell.)

with the Dry Valley matter, for example, you stated it was Mr. Haggerson who told you and Mr. Van Fleet to turn the properties over to the Vanadium Corporation of America, didn't you?

A. That is correct.

Q. So you had a good deal of contact, didn't you, with the people who sold the product that you produced for them? A. Twenty years of it.

Q. All right.

Now, in the light of this correspondence, and in the light of the questions asked you by the Court as to whether anybody was trying to buy this from you, do you know the reason why the Electro Metallurgical Company would not sell the vanadium oxide to Continental Ore Company when it asked for it—10,000 to 15,000 pounds?

Mr. Archer: I object to the question as without foundation. There is no indication who saw this letter at the time it was written.

Mr. Alioto: Your Honor asked him a number of [552] questions on this line, if your Honor please, and the record——

The Court: I understand exactly what the record is.

Q. (By the Court): When did you first know about this, Mr. Witness? When did you first know about these letters?

A. The letters here? Well, the letters themselves, I had not seen them until they were put before this meeting. I heard about the matter at this time, in

(Testimony of Blair Burwell.)

1943. They were not in my files, these letters, and I didn't see them before this time.

Q. Was this arrangement with the government in force at that time? A. No, it was not.

Q. When did it become effective?

A. The government program ended, I think, shortly before this, and we were shutting down our mines because we had surplus vanadium at the time this letter was written.

Q. In 1943?

A. Late 1943, that is correct. We had vanadium and were shutting our mines down and laying off our people at the time this letter was written. I knew about the Leir incident as a matter of conversations, discussions that came to me naturally in the course of my duties. [553]

Q. (By Mr. Alioto): Did you know at that time that Mr. Leir, or the Continental Ore Company, were trying to buy—was trying to buy vanadium oxide from your company?

A. Oh, yes. I heard that at that time.

Q. Do you know why they would not sell it to them?

A. Well, I heard exactly that they did not want to sell vanadium to Mr. Leir because they wanted to keep him out of the vanadium business. No other reason.

Mr. Alioto: Now then, I would like to just read to the jury, in view of the testimony, a similar letter. This is, again, November of 1943. This is Exhibit 46.

(Testimony of Blair Burwell.)

Mr. Leir wrote to the Vanadium Corporation of America at the same time. This is the other company (reading):

"Gentlemen:"——

this is dated November 16, 1943 (reading):

"Gentlemen:

"We would appreciate your offering us 10,000 to 15,000 pounds of V_2O_5 contained in vanadic acid per month. We would be ready to sign a contract with you for a fixed length of time."

And the answer, November 19, 1943, the same month (reading):

"The Continental Ore Company.

"Gentlemen: [554]

"Re: Vanadium pentoxide.

"In response to your inquiry of November 16th requesting quotation on 10,000 to 15,000 pounds monthly of V_2O_5 content in vanadic acid, we regret very much that due to our present commitments we are not in a position to take on this additional tonnage at the present time. Perhaps if you are still interested at a later date and our situation changes we will be glad to look into the matter further at that time.

"Regretting our inability to be of service to you at this time, we are

"Very truly yours,

"Gustav Loub,

"Assistant Vice President,

"Vanadium Corporation of America."

(Testimony of Blair Burwell.)

Q. (By Mr. Alioto): Now, Mr. Burwell, at this time your company was representing to the United States Government that because the vanadium supply was plentiful they should cut down the production of Nisley & Wilson, wasn't it?

Mr. Archer: I object to the question as leading, your Honor.

The Court: It is leading and suggestive. He is your witness. [555]

Q. (By Mr. Alioto): As of November, 1943, what, if any, reports was your company making to the United States Government about the vanadium situation with respect to whether it was in tight supply or in plentiful supply?

The Witness: I didn't catch that last. I am sorry.

(Question read by the reporter.)

A. We were—my recollection is it was in plentiful supply. It couldn't have been anything else. It was running out of our ears. We had more than we needed. We couldn't sell it.

Q. (By Mr. Alioto): And that is what you told the government, isn't it? A. Oh, yes.

Q. In response to certain questions from Mr. Holland you read a certain statement of Mr. Gustafson as to the vanadium industry.

May I please have that statement you read from, Mr. Holland? The reason, principally, why I want it is because there was a good deal of talk at that time about this document here, this document there,

(Testimony of Blair Burwell.)

and I am sure the record is confused on that matter.

May we have this marked for identification?

(The statement referred to was thereupon marked Plaintiffs' Exhibit No. 59 for identification.)

Q. (By Mr. Alioto): Would you be good enough to look at Plaintiffs' 59 for identification and mark with a pencil and initial that section which you read into the record, so we will know where it is?

A. (Witness marks on exhibit.)

Mr. Alioto: We will offer that section into evidence, if your Honor please, so the record will be clear as to what he was talking about.

The Court: Isn't it already in evidence?

Mr. Alioto: The problem is he read it, and there were a lot of references to this record here, this record there, and I am just afraid the record is somewhat confused. It ought either to be in evidence somewhere, or identified, so it can be referred to, so we will know what we are speaking of.

The Court: Very well. Admitted.

(The portion of the statement marked Plaintiffs' Exhibit No. 59 for identification was marked Plaintiffs' Exhibit No. 59-A in evidence.)

Q. (By Mr. Alioto): Now then, with respect to the last sentence, which I want to read you (reading):

"Since the estimated annual production of th. Colorado Plateau, even under an accelerated program, [557] would be small in relation to the total

(Testimony of Blair Burwell.)

U. S. requirements and to supplies available from foreign sources, it appeared more economical to obtain the uranium as a by-product from vanadium operations which were geared to the vanadium market."

Now, on your examination by Mr. Holland I believe you said that the advice on this matter came from the Electro Metallurgical Sales Company, is that correct?

A. Well, by inference, and by the wording, which was precisely the same as used by representatives of the Electro Metallurgical Company, they were the same words that he used in conferences we had on the matter.

Mr. Alioto: I will make a motion to strike the language "by inference," if your Honor please. This matter ought not to be by inference.

Mr. Holland: Strike the whole thing.

Mr. Alioto: I made a motion to strike the whole thing, didn't I? I am going to get at it directly. The whole thing is stricken, as I understand it.

Q. (By Mr. Alioto): Isn't this almost word-for-word the language used by Mr. Priestley to you at this committee and directors' meeting?

A. That is correct.

Q. At the time you had your fight?

A. That is correct, that is correct. [558]

Mr. Archer: I object to the question as leading.

The Court: Objection sustained. That is purely calling for a conclusion. To say now that that is the language of a certain individual because you had

(Testimony of Blair Burwell.)

heard him use that kind of language before? That is calling for a conclusion.

Mr. Alioto: I am simply asking for the fact, first, if your Honor please, and then I want to develop it further. I want to show that that man was also the adviser to the Atomic Energy Commission at the time.

The Court: Well, we will take a recess, now, until tomorrow morning.

(Whereupon an adjournment was taken until Friday, June 6, 1958, at 10:00 o'clock a.m.)

June 6, 1958, 10:00 o'clock a.m.

The Clerk: Continental Ore versus Union Carbide et al., further trial.

BLAIR BURWELL

a witness called on behalf of the plaintiff, having been previously duly sworn, resumed the stand and testified further as follows:

Redirect Examination—(Continued)

Mr. Alioto: If your Honor please, after yesterday's session there was placed in evidence as Exhibit 59 for the plaintiff a document from this witness to Mr. H. D. Kaiser of the Atomic Energy Commission, and at that time the witness said there were one or two lines of personal matter in it.

The witness has now said that he has no objection to the entire letter going in. Counsel and I have discussed it this morning and Mr. Holland suggests it

(Testimony of Blair Burwell.)

be done in that fashion, and I have no objection to it, so, if it may be the order of the Court that the entire letter, previously marked Plaintiffs' Exhibit 58, shall be received in evidence.

The Court: Very well.

(Letter, 1/22/48, Burwell to Kaiser, received in evidence in its entirety as Exhibit No. 58.)

[See Book of Exhibits.]

Q. (By Mr. Alioto): Now, Mr. Burwell, yesterday we were discussing [561] Plaintiffs' Exhibit 59-A at the adjournment, that being the statement of Mr. Gustafson of the Atomic Energy Commission, dated December 17, 1948, and more particularly that portion of the statement which you marked out and which reads as follows:

"Following the war it was tentatively decided by the Manhattan District to purchase only by-product uranium rather than to stimulate and support increased production by special incentives, and then it appeared more economical to obtain uranium as a by-product from the vanadium operations which were geared to the vanadium market."

Now, had you prior to this time discussed this same subject matter with Mr. Priestley of Electro Metallurgical Company?

A. With Mr. Remmers of the Electro Metallurgical Company and Mr. Priestley, both.

Q. And approximately how long prior to December 17 of 1948 did that discussion between you, Mr. Priestley and Mr. Remmers take place?

A. Approximately a year, a year and a half.

(Testimony of Blair Burwell.)

Q. Where did that discussion take place?

A. One of the discussions took place at the meeting of the Budget Committee of the officers in the Carbide.

Q. Now, on that meeting, you have already testified to [562] that and that's already in the record so there will be no occasion to repeat that, Mr. Burwell, unless there is something you wanted to add that you don't presently remember having testified to.

Now, where did you have this other meeting with him? A. I don't recall the place.

Q. You think it was in New York?

A. There were a number of meetings in which this thing was discussed.

Q. Would you be good enough to give us the substance of your conversations, that is, conversations between you, Mr. Priestley and Mr. Remmers, on this subject?

A. Well, in particular I recall a conversation—I believe it was in Grand Junction, Colorado, with Mr. Remmers,—pertaining to this point.

The Court: Who is Mr. Remmers?

A. Vice-President of Electro Metallurgical Company, Vice-President of Electro Metallurgical Sales.

In which we discussed the future of the Colorado Plateau's operation and I was stating the objectives of acquisition and of plans for the future that had been developed as a matter of corporate policy

(Testimony of Blair Burwell.)

before he came into the picture a year or two before.

Well, I stated I thought that the production of vanadium would have to be subordinated to the production of uranium, that we had prepared at company expense a plan which [563] was the concensus of our opinion of what should be done, and I said that I thought that the uranium field would be opened up in a very short time and suggested we acquire certain mining properties, particularly the Polar Mesa, the Outlaw Mesa, the center of the mesas, various tracts of mining lands that were not at that time acquired.

He said he didn't feel that this program was going to come for another five years.

And I told him I thought he was terribly wrong.

He said he didn't believe that there was any real economies in getting uranium unless it was a by-product from vanadium production tooled to the vanadium sales.

And that was in the third floor of the Electro Building in Grand Junction, Colorado.

The Court: When?

A. To the best of my recollection——

The Court: When?

A. Approximately that conversation, your Honor, I believe was in the fall of 1947, approximately 11 years.

Q. (By Mr. Alioto): Then did you ever discuss that same subject matter with Mr. Priestley of the Electro Metallurgical Company other than in the

(Testimony of Blair Burwell.)

meeting of the Budget Committee that you have already testified to?

A. No, I don't recall. I probably did. I don't recall.

Q. Now, who in 1948, or which companies in 1948 were the [564] advisers to the Atomic Energy Commission, Mr. Burwell? A. 1948?

Q. Yes. I am trying to——

A. I don't recall.

Q. ——relate this to the statement of Mr. Gustafson dated December 17th, 1948.

Now, prior to the time of that statement——

A. I believe one of the advisers was Mr. Searles, the President of Numont Mining Company; another adviser was Mr. Donald McLaughlin of Home Stake Mining Company. About eight or nine people.

Q. I am asking directly, to pinpoint it, did any of the companies involved in this litigation——

A. None of the advisers were directly on the Advisory Board of the Raw Materials Commission, no.

Q. Well, when you say "directly" on it, do you have some reservation in mind?

A. The Raw Material Division of the Atomic Energy Commission Advisory Board was appointed about that time and neither Mr. Priestley nor Mr. Remmers were on that Board.

Q. Now then, in relation——

The Court: The opinions—these statements that you have made, your idea as to the future develop-

(Testimony of Blair Burwell.)

ment with respect to uranium, and also the statement of Mr. Priestley and Mr. Van Fleet—— [565]

Mr. Alioto: Remmers.

The Court: ——Mr. Remmers—were those your individual opinions or was it something that had been worked out by the corporate bodies themselves?

A. These were the opinions that were worked out by the corporate body of United States Vanadium Corporation, the Union Carbide and Carbon Corporation, a year, year and a half preceding the time when Mr. Remmers and Mr. Priestley had any direct connection in the company.

To explain that, during the time that these policies were developed, your Honor, that I discussed in Grand Junction, Mr. Rafferty was chairman of the Board of United States Vanadium Corporation. He was also a vice-president, senior vice-president of the Carbide Company.

Mr. Van Fleet was the president of the United States Vanadium Corporation. Now, I was the vice-president.

The policies that had to do with the process and the policies that had to do with the planning of vanadium production in its relationship to uranium production for the future were corporate policies that were determined and agreed upon by the three people I have just named.

Now, subsequent to this particular time the following things unfortunately happened:

Mr. Van Fleet had an operation for cancer, was

(Testimony of Blair Burwell.)

ill; Mr. Rafferty had a heart attack, and later he died; Mr. [566] Priestley replaced Mr. Van Fleet as president of the company; and Mr. Remmers entered the company as a vice-president; and the entire corporate policy changed in the space of a year.

Therefore, when I was speaking in Grand Junction, or when I was speaking previously, I was speaking with the previous policy of the Carbide Company which had been considered by this group I just told you.

The Court: Well now, when you suggested that you should buy these additional claims that had possibility of uranium production, that was your idea, or was that the policy of the company as had been determined?

A. That was the recommendation that I made to the policy group that I belonged, and which we had agreed that if the atomic bomb succeeded and that the atomic program—the atomic energy was apparently on its way, that there was the corporate opportunity to acquire these additional properties and proceed to take advantage of our knowledge and know-how and research in this field.

The Court: Do you regard that as an exercise of good business judgment?

A. Why, surely so, your Honor. Surely so. As long as the exercise of good business judgment did not impair the national security.

Now, there is a fine point.

(Testimony of Blair Burwell.)

The Court: Getting to the other point, at the [567] time you made this recommendation, was it made as an exercise of business judgment of your companies in the development of uranium and vanadium production, or was it made to prevent somebody else from buying it?

A. No, in this time, your Honor, we had forgotten all about this business of preventing anybody else from buying. All of the questions of preventing somebody else from buying, insofar as Mr. Rafferty, Mr. Van Fleet and myself went, and insofar as the Carbide Corporation went at that time was all supposed to be forgotten.

In other words, we looked at this thing now as good business for the future because Carbide at that time was planning, and I have here in this case the discussions of the nuclear division of Union Carbide and Carbon Corporation where that great Corporation could take the leadership in this atomic field, but there when you had the question of public trust, a good public servant and a great corporation, why, it was a great corporate opportunity, and I was ambitious, as any half-young mining engineer would be at that time, so it was good business, your Honor, from another standpoint entirely disassociated from what happened prior to that time.

But on the other hand, the core was this, that other people, who had no part or no sympathy or particularly no understanding — or, just say that they maybe didn't know—had moved into the corporation policy-forming committee after [568] 1944.

(Testimony of Blair Burwell.)

There the great conflict, the warring conflict of the vanadium industry came up.

There is the story behind this atomic energy program.

The Court: Well, at this time——

A. It's hard to define——

The Court: ——were there a great many, what you might call, promoters, or those that were previously inexperienced in mining vanadium or uranium, were there a great many of those *speaking* and actually securing claims on this territory?

A. Yes, your Honor. We had used the term "promoters" which was a code word for people who were acquiring properties for espionage purposes.

The Court: Yes?

A. We termed—there's another term, "Promoters," which we didn't regard—you can't regard as promoters because as this field opened up and roads were built and as a result of the war effort and the Manhattan District needs, this field became a terrifically important field and it expanded greatly.

Now, there are hundreds and hundreds of little miners who had a few claims and a little cedar log shack up on some ridge that became—suddenly had an opportunity to do something, and, therefore, hundreds and thousands of mining claims were acquired in the adjacent—by these small [569] miners.

Now, those were the people, your Honor, that were mobilized as a part of the obtaining of additional vanadium and then for uranium by the

(Testimony of Blair Burwell.)

United States Vanadium Corporation, Union Carbide Company, by Mr. Van Fleet and myself — as what we thought our job was for the war.

Now, when we did that, we forgot all about this question: We'll keep them out of the vanadium business—and don't let them have the plant.

So you have to understand that there were three distinct shifts of corporate policy, and I am speaking for one going out and another one coming in, which we disagreed——

The Court: Yes.

A. Now, if this was just honest disagreement about money and honest disagreement about economics, whether it was good business, and the new people came in, the new president said: Mr. Van Fleet, you're chairman of the board; get out—and it was the good of the company for dollars—why, we couldn't have had anything to say about that at all, and I wouldn't be here.

But when we felt that that change of policy imperiled the objectives that Carbide had unselfishly composed, then there was a point that would sound a little bit far-fetched and idealistic unless you had lived this thing such as I have. Then the warring interests of the vanadium industry took over, [570] but the——

The Court: Anyway, these discussions now, the recommendations that you made, you were doing that from the standpoint of the development of your own corporation and the exercise of good business judgment?

(Testimony of Blair Burwell.)

A. At this time the corporate opportunity had shifted——

The Court: The time of the——

A. It had gotten too big to try to fool around with controlling by a small mill here and there. "Let's all get together and let's everybody do the best, because it's big enough for everybody now."

Q. (By Mr. Alioto): Now, then, you indicated there was a change in that policy in 1944?

A. I did.

Q. And you said that certain other men gained control of the corporation, in answer to his Honor's question. Which men did you refer to?

A. Mr. W. J. Priestley, who had previously been president, I believe, of Electro Metallurgical Company, became president of the United States Vanadium Corporation.

Q. Yes. Anybody else come in at that time?

A. Now, this is after '44?

Q. Yes, I understand that, but you say the policy started to shift in '44.

A. Yes. Mr. Remmers, who isn't on that chart, was [571] vice-president of Electro Metallurgical Sales Corporation, became vice-president of United States Vanadium Corporation, along with me—there were two vice-presidents—in fact, there were three. [571-A]

Q. (By Mr. Alioto): Yes. Did Mr. Haggerson assume any different position at that time?

A. He, I believe, became president of the Union

(Testimony of Blair Burwell.)

Carbide & Carbon Corporation. I am not sure about that.

Q. Did these three men change the policy of the corporation, as his Honor has inquired?

A. I just testified to that to the judge.

Q. What was the policy after 1944?

Mr. Archer: I object, your Honor. I think we should have some conversations here.

Mr. Holland: He has already stated that.

Mr. Alioto: No, he has not. He has stated the policy up to 1944. Now these new men took over.

The Court: Answer the question.

A. Well, the policy after 1944 was to return to the same restrictive agreements on vanadium.

Q. (By Mr. Alioto): With whom?

A. With the Vanadium Corporation of America.

Mr. Archer: I move to strike that, your Honor. That is purely a conclusion of the witness.

The Witness: That was the quarrel we had.

Q. (By the Court): That was the discussion?

A. That was the quarrel between these officials of Carbide.

The Court: The objection will be sustained. I think before you can bind a corporation there must be some corporate act. The mere statement of an individual would not be conclusive evidence as to what the corporation did. Objection sustained and exception allowed.

Q. (By Mr. Alioto): In connection with this subject matter, were the discussions with Mr.

(Testimony of Blair Burwell.)

Priestley, with Mr. Remmers and Mr. Haggerson, about the policy of the corporation after 1944?

A. That was the return, that we were going to make, the policy that was to obtain, to hold the vanadium business between the two companies, the Vanadium Corporation of America and the United States Vanadium Corporation.

Q. And who said that? In substance, who said that?

A. Well, Mr. Priestley, for one, as I recounted in this discussion with Mr. Rafferty in his office.

Mr. Archer: I move to strike the witness' answers, then, because he has stated he has already given his answer. The rest is just a conclusion.

The Court: Sustained. I think this is repetitious.

Mr. Alioto: Let me wind up this subject in this way: [573]

Q. (By Mr. Alioto): What objection, if any, did you and Mr. Van Fleet make to Mr. Priestley, Mr. Remmers, Mr. Haggerson, or anybody else, about this restrictive policy?

Mr. Holland: I think that has already been testified to, your Honor.

The Court: Yes, I think he has covered that.

Mr. Alioto: I thought so. If your Honor please, I thought so, except I thought your Honor's question had left the matter——

Q. (By the Court): This was merely a discussion between you men, is that it?

A. As officers of different groups of the company.

(Testimony of Blair Burwell.)

Q. Just a discussion?

A. Always policies are discussions, your Honor. I mean, they are not agreements. You are not sitting down and writing them down as a matter of corporate directors' meetings.

Q. (By Mr. Alioto): What, to your knowledge, did the company do thereafter, after 1944? What did it do? What were the facts?

A. Again, the corporation proceeded to divert its sales of vanadium to the Vanadium Corporation of America. That is what I testified to in regard to the ferro-chrome silicon. That is what I testified, that we couldn't move our vanadium [574] at times when we had plenty of vanadium. This was going on all the time. This had started again. When the government purchasing had stopped and we were laying off our people, although we had a policy change, the sales department would not sell the vanadium.

Mr. Holland: If the Court please, I ask that this be stricken, because the witness has just testified that it is a matter to which he has already testified.

The Court: I think it is repetitious.

Mr. Alioto: If it is repetitious it should not hurt, if your Honor please.

Mr. Holland: We could go on forever.

The Court: It is not material; it is not competent. The objection is sustained.

Q. (By Mr. Alioto): Now, you were asked a great number of questions by both Mr. Holland and Mr. Archer about the government programs and

(Testimony of Blair Burwell.)

your participation in the government programs, and in answer to a question of Mr. Holland's you stated that you had prepared a report for Senator Milligan. I hand you a copy of a document marked "American Uranium Resources, by Blair Burwell, in July of 1949," and ask you if that is a copy of the report that you prepared for Senator Milligan?

A. That is.

Mr. Alioto: At the completion of counsel's [575] cross-examination we will offer this report in evidence.

Mr. Holland: Is that a speech Mr. Burwell made?

Mr. Alioto: No, this is not a speech; it is a report he prepared for Senator Milligan, with specific references not only to uranium, but to the vanadium industry.

Mr. Holland: What is the date of the report?

Mr. Alioto: July, 1949, which covers the approximate years about which Mr. Holland was interrogating the witness, and on the same subject matter, but also refers to the policy of the Union Carbide Company in the 1947-1948 period.

Mr. Holland: Does it add anything to what he has already said on the stand, or is it just a repetition of it?

Mr. Alioto: I think it adds a good deal.

Mr. Holland: I have not read the report, but I object to it as being repetitious. It is just the same stuff we have been listening to for the last week.

(Testimony of Blair Burwell.)

The Court: The objection is sustained. Exception allowed.

Let us get along. I think this witness has covered every feature that possibly could be covered.

Mr. Alioto: In connection with that matter would your Honor be good enough to read certain sections of the report?

The Court: This is a report to Senator Milligan?

Mr. Alioto: Yes, by an official of Carbide, [576] relating to Carbide policy, although he was not an official at this time. He relates the Carbide policy at the time that he was an official.

Mr. Holland: He has already related that, your Honor.

The Court: Objection sustained.

Mr. Alioto: May we have this document, then, marked for identification, if your Honor please, so the record will be clear at this point what is being excluded?

(The report referred to was thereupon marked Plaintiffs' Exhibit No. 60 for identification.)

Mr. Alioto: I take it the record sufficiently shows the document we have been discussing, and which was excluded, is Plaintiffs' 60 for identification.

The Court: Very well.

Q. (By Mr. Alioto): Mr. Burwell, there was considerable discussion with counsel and with the Court yesterday as to the interplay of various governmental regulations during the war, and I want

(Testimony of Blair Burwell.)

to be sure that those dates are clear. Let us start in 1938. You gave testimony about matters occurring in 1938. It is perfectly clear that there were no government or war regulations involved in 1938 at all, isn't it? A. That is right.

Q. Now we will take 1939. [577]

A. None.

Q. It is perfectly clear that there were none involved during that period of time.

We will take 1940. It is a fact, isn't it, that in 1940 there was an embargo on exports, in July of 1940?

Mr. Archer: I will stipulate to that.

Mr. Alioto: July of 1940, just an embargo on exports.

Mr. Holland: Why don't you take the stand, Mr. Alioto.

The Court: The embargo was made by the government?

Mr. Alioto: Yes.

Q. (By Mr. Alioto): Except for the embargo on exports——

A. There were some exceptions to the embargo at that time. Exports were allowed, I believe, subject to the government's approval.

Q. They were certainly allowed to England, for example? A. That is right.

Q. And England was a very big market in 1940 for vanadium, was it not?

Mr. Archer: I object to that question as lead-

(Testimony of Blair Burwell.)

ing. There is no basis for the statement that this man ever sold any vanadium in England. [578]

Q. (By Mr. Alioto): What is the situation with respect to England as an export market in 1940?

A. We were shipping vanadium to England in 1940.

Q. Except for this embargo in July of 1940 was there any other government regulation that affected the vanadium industry? A. There was not.

Q. Now then, there was an allocation order on December 20, 1941, was there not?

Mr. Holland: Won't Mr. Alioto let the witness testify? He has been doing all the testifying himself.

Mr. Alioto: These are matters of record.

The Court: Let us get along.

A. Yes, that is my best recollection.

Q. (By Mr. Alioto): From 1941 up to 12/20/41 there was no further regulation, is that correct?

A. That is right.

Q. Then you had an allocation go into effect——

A. That is right.

Q. ——on December 20, 1941?

A. That is right.

Mr. Alioto: Will counsel stipulate that that allocation was removed on December 30, 1943—the allocation [579] system?

Mr. Holland: We are just trying to make a chart here without using the witness.

Isn't it a fact that in August, 1941, there was a priority order?

(Testimony of Blair Burwell.)

Mr. Alioto: There was a priority order?

Mr. Holland: Yes, everything was put on priority. I mean, vanadium was put on priority in August, 1941.

Mr. Alioto: All right, let us put "August, 1941," there. The order itself was dated December 20, 1941.

Mr. Holland: No, that is another one.

Mr. Alioto: Can we agree, Mr. Holland and Mr. Archer, that the allocation system was removed on December 30, 1943?

Mr. Archer: Certainly not all allocations, because they were not all removed then.

Mr. Alioto: Well, the basic order on allocations.

Mr. Holland: Why don't you just put it in evidence?

Mr. Alioto: Do you have it?

Mr. Archer: No, I don't have it.

Mr. Alioto: If we can get it we will put it in evidence, but so we can understand some of the questions that will follow, will you agree that the allocations were removed on December 30, 1943?

Mr. Archer: There was another one at that date.

Mr. Alioto: December 30, 1943.

Q. (By Mr. Alioto): Now, you have already testified——

Mr. Archer: I think we ought to put in the price controls.

Mr. Alioto: Yes, we will get to the price controls. We will get them all in.

Q. (By Mr. Alioto): So far as Metals Reserve

(Testimony of Blair Burwell.)

program was concerned, you have already testified the decision was made in October and November, 1943, to cancel out certain of the Nisley contracts.

A. That is correct.

Q. So far as price control is concerned, price ceilings, the maximum price that should be charged went into effect, did it not, on April 28, 1942?

It is not very artistic writing, but we can agree they went into effect at that time.

Mr. Holland: There was a prior situation in 1941 under which there were voluntary price controls,——

Mr. Alioto: So far as the law is concerned——

Mr. Holland: ——by agreement with the government. You are getting into a pretty complicated subject here. Those dates are not quite as fixed as they appear to be.

Mr. Alioto: Can we agree that the maximum price [581] control order was effective April 28, 1942?

Mr. Holland: Yes. Why don't you get all these orders and put them into evidence?

Mr. Alioto: I have no objection to that. I have no objection to that at all.

Mr. Holland: I haven't got any of them. I am not sure you are absolutely accurate on that.

Mr. Alioto: Let us see the evidence we had yesterday, so it will be plain on its face.

Where are the requests for orders that I read last night that were turned down?

Mr. Holland: When you speak of price controls

(Testimony of Blair Burwell.)

you mean on both ferro-chrome and oxide, is that correct?

Mr. Alioto: Yes, the maximum ceiling prices, so-called. We will get to that in a moment.

The Court: Do you think the witness will testify to that?

Mr. Alioto: Here is the point I was making:

Q. (By Mr. Alioto): Do you recall yesterday I read certain requests of the plaintiff to the defendant, Electro Metallurgical Company, and the request of the vanadium corporation, dated November, 1943, when the plaintiff asked for 10,000 to 15,000 pounds of vanadium oxide per month? State whether or not there was any government regulation which forbade those companies from [582] complying with that request if they wanted to.

A. Not that I knew of.

Q. During the period of time when you were operating under Metals Reserve—I think there was considerable testimony on that—during that period of time you operated one plant for Metals Reserve. That was the Durango plant. That is correct, is it not? A. That is correct.

Q. But you also operated your own plant at Uravan for the regular customers that you had prior to that time, didn't you? A. Uravan and Rifle.

Q. At Uravan and Rifle. And those plants were not being operated for Metals Reserve, were they?

A. Oh, no.

Q. By reference to Plaintiffs' Exhibit No. 18 can you tell us what production, what private pro-

(Testimony of Blair Burwell.)

duction you had during the period from 1941 to 1945? A. Where?

Q. Private production. That would be Uravan and Rifle. 1941 to 1945.

A. In so far as Rifle went—I can put them both together so it won't take too much time.

In 1941 private production at Rifle and Uravan was 2,376,000 pounds.

1942, 3,510,000. [583]

1943 was 3,301,900 and some pounds.

1944 the Uravan plant closed, but there was still 2,554,000, coming largely from Rifle.

In 1945 there was 1,813,000 coming from Rifle, and none from Uravan.

Q. As against that, what was the production for Metals Reserve at Durango?

A. The production for Metals Reserve in Durango in 1941 was none, in 1941.

186,000 pounds—I just give the even thousands —in 1942.

852,000 in 1943.

300,000 in 1944.

365,000 in 1945.

Q. It is clear, then, that your private production was far greater than your Metals Reserve production was? A. That is right.

Q. It is also true, is it not, that the Vanadium Corporation of America produced at Naturita, as well as the Monticello plant?

A. I think that is on the same sheet, isn't it?

Q. Yes.

(Testimony of Blair Burwell.)

I would like to read this to the jury, if your Honor please, at this point.

Vanadium Corporation of America, Metals Reserve, at [584] Monticello—and I will read the Naturita plant—I will read them together.

For 1941, 400,000 at Naturita; none for Metals Reserve at Monticello.

For 1942 the private production was 439,500; and their Metals Reserve production was 235,000.

1943 the private production was 752,000 pounds; the Metals Reserve production was 817,000.

1944 the private production at Naturita of the Vanadium Corporation of America was 786,000; the Metals Reserve production was 150,000.

In 1945 the Naturita production was 505,000; the Metals Reserve was 730,000 pounds of vanadium.

Mr. Archer: I think you ought to read the public production there under the government contracts which existed from 1943 to 1945.

Mr. Alioto: I will be very happy to, Mr. Archer. You are talking about, now,——

Mr. Archer: Ask Mr. Burwell. He prepared the chart.

Mr. Alioto: I can read it as well as Mr. Burwell.

The Witness: I beg to differ. I did not prepare the chart.

Mr. Archer: Who prepared it, Mr. Burwell?

The Witness: Union Carbide & Carbon, U. S. [585] Vanadium people, the engineers under my direction. These were statistics from the companies' records, and I didn't prepare them personally.

(Testimony of Blair Burwell.)

Mr. Alioto: What is, specifically, the column you want me to read to the jury, Mr. Archer? I will be glad to do it.

Mr. Archer: The 2,000,000 pounds column. I believe Mr. Burwell testified yesterday they produced 1,900,000 pounds under the sludge plant contract with the Army, and I think if you look in Column 7, that is where they are continuing up to the year 1945.

Mr. Alioto: In Column 7 the production that Mr. Archer would like me to call your attention to, and which I am happy to do, is entitled "Plant A, Grand Junction, U.S.V. Contract Account, Pounds V_2O_5." This is the so-called sludge contract he refers to.

As against Uravan and others in 1940 there is nothing.

In 1941 there is nothing.

In 1942 there is nothing.

In 1943 there is 185,620 pounds.

In 1944 there is 820,606 pounds.

In 1945 there is 916,095 pounds.

Q. (By Mr. Alioto): Yesterday, at the end of the session, Mr. Holland asked you, Mr. Burwell, whether or not you were now a [586] competitor of V.C.A. or United States Vanadium Corporation.

A. I was so honored.

Q. You recall that line of inquiry, in any event.

Now then, approximately during what period of time did you go into the vanadium industry after you left Union Carbide? A. 1952.

Q. 1952? A. I think that is the date.

(Testimony of Blair Burwell.)

Q. (By The Court): When did you leave the defendant companies?

A. In 1948, finally. '47 was my resignation. I finally left in the spring of '48. '52 is when I first entered into the vanadium production for——

Q. (By Mr. Alioto): Now, this document that you prepared for Senator Millikin, which is now marked Plaintiffs' Exhibit 60 for identification, was prepared, was it not, long before you went into the vanadium industry in any form on your own?

A. That's right.

Mr. Archer: I object to the question as leading.

The Court: Yes, it is very leading and suggestive. You can ask him the question. Let him testify.

Mr. Alioto: I thought it was just a matter of time, if your Honor please. [587]

The Court: Well,——

Q. (By Mr. Alioto): What was the time that you prepared the document for Senator Millikin?

A. July 8, 1948.

Q. July of 1948?

A. That's right. 1949.

Q. '49. When was the time that you went into this competitive vanadium industry that Mr. Holland honors you with?

A. Approximately '52.

Q. All right. So that at the time you wrote that report for Senator Millikin you weren't in any vanadium industry, were you? A. No.

Mr. Alioto: If your Honor please, we will offer it in evidence, now, on a different theory—as a prior

(Testimony of Blair Burwell.)

consistent statement. There has been an attempt here to indicate that his testimony is colored by the fact that he is a so-called competitor. Now, this——

The Court: You are, or were not connected with the company at the time that was prepared?

The Witness: In no way or form, your Honor.

The Court: Objection sustained.

Mr. Alioto: Well, I am offering it only as a prior consistent statement in view of the alleged impeachment—— [588]

The Court: Objection sustained. Exception allowed.

Mr. Alioto: So the record may be clear, the document I was offering in that connection was Plaintiffs' Exhibit 60 for identification.

Q. (By Mr. Alioto): Now, you were further asked yesterday whether or not you had certain business connections with Mr. Leir. State whether or not in July of 1949 you even knew Mr. Leir.

A. I had never met Mr. Leir until a year and a half ago.

Mr. Alioto: Now, if your Honor please, with respect to the attempted impeachment by showing some relationship between the witness and Mr. Leir, I now offer Plaintiffs' Exhibit 60 for identification on the ground it is a prior consistent statement in line with his testimony here before any even acquaintance with the plaintiffs' president arose.

The Court: Is that the same one you offered?

(Testimony of Blair Burwell.)

Mr. Alioto: It is the same document, on that different theory, to show a prior consistent——

The Court: Objection is sustained. Exception allowed.

Mr. Alioto: Now then, in order to complete the record on this matter of impeachment by showing interest, we would like to have marked for identification a document entitled "Memorandum on Vanadium and the Operation of the [589] United States Vanadium Corporation."

The Clerk: Plaintiffs' 61 marked for identification.

(The memorandum referred to was marked Plaintiffs' Exhibit No. 61 for identification.)

Q. (By Mr. Alioto): Mr. Burwell, I show you a copy of a document that has now been marked for identification 61. Would you be good enough to look at that document, Mr. Burwell, and then state whether you are the author of it?

A. That's correct.

Q. Can you tell us when it was that you composed that document?

January 4, 1956.

Q. And does that document purport to set forth facts in the vanadium industry as you know them through your associations with these defendants?

A. They do, as I knew them.

Mr. Holland: Your Honor, this witness may have written a book on the subject. I think we ought to shut this off somewhere. I object to it on the grounds——

(Testimony of Blair Burwell.)

Mr. Alioto: I haven't offered anything, yet, if your Honor please.

Mr. Holland: Oh, pardon me.

Mr. Alioto: I haven't completed the foundation [590] for this document. I am trying to make a record. I anticipate it may be excluded, and for that reason I want to be sure this record is here. We have a little tyrant here we have to operate with, as you know (indicating court reporter).

Q. (By Mr. Alioto): Now then, at the time you prepared this document, January 1st of 1956, did you even know Mr. Leir?

A. No, never met him.

Mr. Alioto: We will offer this document in evidence, if your Honor please, for the specific purpose of overcoming any inference of interest which Mr. Holland may have elicited by reason of bringing out the fact that he even knew the plaintiff, Mr. Leir.

The Court: Objection sustained.

Mr. Alioto: Thank you.

I think that makes the record on that, and we will move along, if your Honor please.

Q. (By Mr. Alioto): Now, in connection with the evidence on activities during the war, Mr. Burwell, particularly with respect to your testimony given on examination by Mr. Holland, Mr. Archer, and certain questions of the Court as to activities—as to certain government involvements during the war, we, at this time, as a matter of chronological presentation, if your Honor please, and while this

(Testimony of Blair Burwell.)

witness is here, offer into evidence as [591] against the Vanadium Corporation of America a letter dated March 11, 1940, from the Apex Smelting Company to the Vanadium Corporation of America requesting a supply of vanadium oxide, and the answer of the Vanadium Corporation of America dated April 8, 1940.

Mr. Holland: This witness had nothing to do with this, your Honor. We are going to have the Apex people here.

Mr. Alioto: Yes, but this witness has a lot to do——

Mr. Holland: He is offering it out of order, and——

Mr. Alioto: May I——

Mr. Holland: ——and Mr. Leir would be the proper witness to introduce it.

Mr. Alioto: May I state the purpose for offering this?

The Court: What does this witness know about that?

Mr. Alioto: This, if your Honor please, covers a certain period of time when this witness says certain policies were in effect. I want to offer this——

Mr. Holland: This has nothing to do with the Carbide——

Mr. Alioto: I want to offer this, if your Honor please, and ask the witness whether or not any war regulations, or anything else, about which both counsel inquired extensively, [592] affected the dis-

(Testimony of Blair Burwell.)

position of this mill. I think I know the answer, but at the same time I think I am entitled to show it through this witness, as they had introduced the subject matter. It will be very short. I can do it in exactly five minutes if I am permitted.

Mr. Holland: I don't think it is proper. We object.

Mr. Alioto: I would like to make——

The Court: The objection will be sustained. You will have an opportunity to offer them.

Q. (By Mr. Alioto): Mr. Burwell, you plan to leave for your home——

Q. (By the Court): You had nothing to do with this?

A. The Apex matter?

Mr. Alioto: No, the witness didn't have anything to do with it, if your Honor please, but there has been an attempt here——

Mr. Holland: He is trying to anticipate our attempt.

The Court: The objection will be sustained.

Mr. Alioto: I want to make a statement as to the reason for it. If the Court does not want to hear it, we will go on to another matter. [593]

Q. (By Mr. Alioto): Now, Mr. Burwell, you gave certain testimony here, both in response to the questions of counsel and the Court, with respect to government controls of various types in the period during the year 1942.

In connection with that testimony, if your Honor please, we at this time offer an inter-office corre-

(Testimony of Blair Burwell.)

spondence of the Vanadium Corporation of America, being a letter from Gustav Laub to Mr. Edward S. Christiansen, its vice-president.

Another letter of Gustav Laub to E. D. Bransome, its president.

Another inter-office memorandum, dated during this '42 period, from Mr. Gustav Laub to Edward S. Christiansen.

And finally, an inter-office memorandum from Mr. Sterling to Mr. Kett.

All of these are very short, and I anticipate can be put in in about a minute and a half, and we would like to put them in at this point in connection specifically with the cross-examination of Mr. Archer as to certain war involvements during this period in '42.

Mr. Holland: This same consideration——

Q. (By the Court): Did you have anything to do with these letters?

Mr. Alioto: I will say to the Court that the witness did not, if your Honor please, but it is in connection [594] with the testimony as to what was going on in '42, and I think the jury should hear this chronologically, and they are very short, Judge.

Mr. Holland: He is anticipating matters. It is the same type of documents, exactly. It has nothing to do with the Apex Smelting and the Vanadium Corporation, about which this witness had nothing to do.

The Court: I think there is a proper way for

(Testimony of Blair Burwell.)

you to introduce that. I doubt if it is proper at this time.

Objection will be sustained. Exception allowed.

Mr. Alioto: All right.

So the record will be clear as to the documents we have been speaking of, if your Honor please, may we have these documents marked for identification?

(The four documents referred to were marked Plaintiffs' Exhibit No. 62 for identification.)

Mr. Alioto: I might say in that connection——

Let me ask the witness a question.

Q. (By Mr. Alioto): I take it you propose, after your testimony is concluded here, to return to Grand Junction, Mr. Burwell?

A. It is very necessary that I do so, to take care of my own——

Q. (By Mr. Holland): I take it you could come back if it was necessary, [595] couldn't you, Mr. Burwell?

A. Well, that is possible. I am called to Washington, Mr. Holland, to testify as to an important bill the Senate Committee of Mines and Mining, and it is very important that I be there.

The Court: This is a matter—he had nothing to do with this. How are you identifying those letters?

Mr. Alioto: For this reason, if your Honor please: These letters, as far as authenticity and genuineness are concerned, they are already stipu-

(Testimony of Blair Burwell.)

lated to as the result of pre-trial proceedings, so there is no problem of identification. The reason I want to get them in at this time, if your Honor please, is because certain industry and governmental conditions existed at this time, of which this witness has given a great deal of testimony. Now then, if we bring them in at a time when this witness is not on the stand, and then the defense counsel attempt to insinuate that they were—that there were governmental policy or other industry reasons for the things that are evidenced by these documents, I am not going to have the witness available to bring those facts out. Whereas, if I can put them in now, and they involve a period of time about which counsel and the Court inquired——

The Court: Hasn't this witness testified to that very thing?

Mr. Alioto: Yes. But, if your Honor please, I [596] anticipate this kind of a practical courtroom situation——

The Court: Objection sustained. Let's get along with something else.

Mr. Alioto: All right.

Now, just to further identify the record on this matter——

The Court: If this witness is not—if he is leaving, I don't know how you can continue with your lawsuit. I think he is the only one, so far.

Mr. Alioto: Yes, we expect to conclude with him today, if your Honor please. It is very un-

(Testimony of Blair Burwell.)

usual that we get a former vice-president and director of a company to testify in this type of case.

May we have that marked for identification?

The Clerk: Plaintiffs' Exhibit 63 marked for identification.

(The letter referred to was thereupon marked Plaintiffs' Exhibit No. 63 for identification.)

Mr. Alioto: Plaintiffs' 63, if your Honor please, are the documents offered just before Plaintiffs' 62, which the Court ruled we could not offer at this time.

Q. (By Mr. Alioto): Now, Mr. Burwell, Mr. Archer inquired of you with respect to certain production of the Anaconda Copper Company yesterday, and I think you told him that you did have a [597] conference with certain officials of the Anaconda Copper Company.

A. That's correct.

Q. If you can, could you fix the approximate time when this conversation took place?

A. Approximately six months prior to the shipments, and there is a record of the documents there, and I wouldn't try to give that date offhand.

Q. All right. Now, the purchase document previously admitted into evidence indicates that there was a shipment from Anaconda in 1941—May of 1941. Do you think it may have been about six months prior to that time?

A. Yes, it was, about—maybe it was a year

(Testimony of Blair Burwell.)

prior to that time, because it preceded that shipment.

Q. (By the Court): That involved your purchase of vanadium from the Anaconda people?

A. That's right.

Q. Do you know of any reason why you couldn't buy it?

A. We were trying to buy it, your Honor.

Q. Did you regard it as a good business proposition for your company to buy that?

A. We had a good business reason to buy it, yes.

Q. (By Mr. Alioto): What was the business reason? [598]

A. To keep it out of the hands of competitors.

Q. Now then—and that was pursuant to the policy of your company? A. Absolutely.

Q. And you were acting under instructions?

A. Absolutely.

Q. Now then, in your testimony, the questions of Mr. Archer—from the questions of Mr. Archer——

The Court: Just a minute. Right there.

Q. (By the Court): Now, at that time the Anaconda group could have sold it to somebody else if they wanted to, couldn't they?

Mr. Alioto: I have a document that might develop that fact, if your Honor please.

The Court: Let him answer.

A. They might have sold it to the Vanadium Corporation of America.

Q. (By the Court): Well, could they have sold it to anybody else?

(Testimony of Blair Burwell.)

A. Nobody else was making ferro-vanadium; nobody else was buying.

Q. Was there any market for it then, other than yourself and the Vanadium Corporation of America?

A. Very little, your Honor. There was only the two.

The other thing would be that if they couldn't sell [599] the vanadium oxide to the two people who had the market—I mean the final product—there was an intermediate product—you have to understand, it wasn't a commercial—something you could go out and sell on the street corner. Therefore——

Q. Well, do you know of anybody else that could have bought it, as a business proposition, except the two companies you mentioned?

A. Not at that time, no.

Mr. Holland: Could I ask one question?

Mr. Alioto: If your Honor please, may I continue along that line that your Honor mentioned?

Q. (By Mr. Alioto): Wasn't the Apex Smelting Company trying to buy vanadium oxide?

Mr. Archer: I object to the question as leading, your Honor. He already testified he didn't know about Apex.

Q. (By Mr. Alioto): Is that correct, that you didn't know about Apex?

A. I didn't know about Apex at that time.

Mr. Alioto: Well, at this time, in connection with the questions just asked, I would like to offer

(Testimony of Blair Burwell.)

into evidence a request of Apex to Vanadium Corporation of America dated March 11, 1940, for vanadium oxide,——

Mr. Holland: Same objection.

Mr. Alioto: ——which was just at the time your Honor is speaking of. [600]

The Court: From whom?

Mr. Alioto: From Apex to the Vanadium Corporation of America, requesting vanadium oxide. That will establish whether somebody else was trying to get vanadium oxide.

The Court: Well, you might show that to the proper witness. What does this witness know about it?

Mr. Holland: He is trying to impeach his own witness.

Mr. Alioto: I am not trying to impeach my own witness. The Court just asked the witness whether anybody else——

The Court: The Court has ruled. The Court has ruled. Let's go.

Mr. Alioto: All right.

Now then——

Mr. Holland: The witness said "No."

Q. (By Mr. Alioto): Now then, with respect to the Anaconda matter, you testified, I believe, that you had a conference in which you told them not to make fused black—fused black oxide, but to make red cake instead, is that correct?

Mr. Archer: I object to that. I don't think that was his testimony. [601]

(Testimony of Blair Burwell.)

Q. (By Mr. Alioto): What was your testimony about this conference with the Anaconda officials, Mr. Burwell?

A. I will tell you. Let's get it accurate.

Q. Fine.

A. My conference had to do with the kind of material and the method of preparation. It was largely technical. And in so much as the fusing of the material would require an additional expenditure, which they were loathe to do, I suggested that they go ahead and make the red cake, which would still require a fusion operation, and that they deliver the red cake to our plant for fusion, which would make it marketable.

Q. (By the Court): Now, when you gave them that recommendation did you do it as an engineer who is supposed to know about those matters, or the officer of some company that was interested in buying it?

A. I was both an engineer and executive, your Honor. I walked in both places.

Q. You couldn't buy it very well unless it was as you suggested?

A. No; we could buy it in any form. We could buy it as ore, if we wanted to buy it. But in this particular case the red cake—they were making red cake, were considering putting it in—making fused oxide, and they were held up [602] from the expenditure of $200,000 to make a fused—for oxide, and called me into conference about it, and, of course, I recommended, as a good business man,

(Testimony of Blair Burwell.)

and also for economic reasons that had to do with my company, and as an engineer, because these things were professional engineering management, here——

Q. You recommended, then, that they manufacture the red cake, as you call it, because you could use that?

A. I recommended that they only manufacture their product part way toward the finished product and we would finish it the rest of the way for the market.

Q. (By Mr. Alioto): Then in May of 1940 did you need to buy red cake?

A. No, we never needed to buy red cake.

Q. So, specifically, as his Honor asked you the question, could you use red cake in May of 1940?

A. No.

Q. But you bought it anyway, didn't you?

A. I testified to that. We did.

Mr. Alioto: We will offer at this time, if your Honor please, the contract between the Anaconda Copper Company and the Union Carbide Company relating to the purchase of the material the witness has just mentioned.

Mr. Archer: What is the date?

Mr. Alioto: The first contract is May 15, 1940, [603] and then there is a letter contract dated December 1, 1942, which takes the entire production for the period beginning January 1, '41, and ending December 31, 1946.

Mr. Archer: No objection.

(Testimony of Blair Burwell.)

Mr. Alioto: We will offer this in evidence, if your Honor, please.

The Court: Admitted.

The Clerk: Plaintiffs' Exhibit 64 admitted and filed in evidence.

(The letter-contracts referred to was marked Plaintiffs' Exhibit No. 64 in evidence.)

[See Book of Exhibits.]

Mr. Alioto: I would just like to call the pertinent provisions of that contract to the attention of the jury.

This agreement is dated May 15, 1940, between the Anaconda Copper Mining Company and the United States Vanadium Corporation, and it is signed, on behalf of the United States Vanadium Corporation, by Mr. Van Fleet and by Mr. Keller on behalf of the Anaconda Copper Company. The agreement provides for the sale of vanadium pentoxide in the form of red cake precipitate. And then the specifications, and then the "Quantity" (reading):

"The entire production of said material of seller's plant at Anaconda, Montana, for a period of two years beginning January 1, 1941, and ending December 31, 1942. Buyer shall have no obligation to purchase in [604] excess of 200,000 pounds in each calendar year, but shall have an option to purchase any part or all of seller's production in excess of 200,000 pounds in each calendar year."

The price of 70 cents per pound of contained vanadium pentoxide.

(Testimony of Blair Burwell.)

Then the mode of delivery is provided by letter-agreement dated December 1, 1942, wherein Mr. Van Fleet writes to Mr. Keller of the Anaconda Copper Company and says (reading):

"Dear Sir:

"We desire to confirm the arrangement made with your Mr. F. O. Case, as follows:

"The agreement between us dated the 15th day of May, 1940, relating to the sale by you and the purchase by us of vanadium pentoxide in the form of red cake precipitate, is hereby amended by striking out the first sentence of paragraph captioned 'Quantity,' and by substituting for said sentence the following words: 'the entire production of said material of seller's plant at Anaconda, Montana, for a period of six years beginning January 1, 1941, and ending December 31, 1946.'"

Q. (By Mr. Alioto): Now then, the vanadium oxide, or the red cake produced [605] by the Anaconda Copper Company was produced as a by-product, was it not, of their phosphates for fertilizer? A. That's right.

Q. Who was it in your company that requested you to get that production into Union Carbide?

Mr. Archer: I object to the question, your Honor. I think the contract shows it was signed by Mr. Van Fleet, not by Mr. Burwell.

Mr. Alioto: He negotiated it. He already testified to that.

Mr. Archer: I think he has testified that he had

(Testimony of Blair Burwell.)

a metallurgical discussion with respect to the process, not that he negotiated the contract.

The Court: I think your exhibit speaks for itself. It shows what the contract was.

Mr. Alioto: Well, all right, if your Honor please.

Q. (By Mr. Alioto): Now, further, Mr. Burwell,——

I was going on to another subject of Mr. Archer's cross-examination, the last one, if your Honor please, and will conclude shortly.

The Court: We will take a short recess.

(Short recess.) [606]

Q. (By Mr. Alioto): Mr. Burwell, yesterday you were interrogated by Mr. Archer on a telegram relating to Durango. It reads as follows:

This is Exhibit 37. It is pretty short; your telegram to Mr. Haldane in 1944:

"Brock Advises That Brinker With Sitton and Other Promoters Are Reported to Be Planning to Take the Durango Plant in Case We Do Not Recapture It. Stop This is Rumor Only But Suggest you advise Mr. Rafferty Regards Blair Burwell."

Now, Brinker and Sitton were well known producers in that area, were they not?

A. Yes, of good reputation.

Q. Very substantial producers?

A. That is right.

Q. Men of means who knew the Colorado Plateau and had had a lot of experience on the Colorado Plateau? A. That is right.

Q. You did not regard them as promoters in

(Testimony of Blair Burwell.)

the code sense of the word in which you used it?

A. Of course not.

Q. You did not regard Continental Ore and Mr. Leir in the code sense of promoters, did you?

A. No.

Q. Mr. Archer interrogated you about the [607] economics of the Plateau with respect to whether you needed a big plant or little plant, and I believe you said that it was the character of the ore rather than the size of the plant that determined the economics of a feasible operation on the Plateau, is that right?

A. That was the main controlling factors. The plant also had something to do with it, but that was one of the main factors.

Q. I want specifically to call your attention to the Gateway area, where there was a mill operated by Nisley and Wilson, as the record already shows, and from which Mr. Leir was obtaining part of his supplies. What was the nature of the ore body that was directly tributary to the Gateway mill of Nisley and Wilson?

A. There were probably, I would say, 800 or a thousand ore bodies tributary to the Nisley-Wilson mill insofar as we would call it ore body. I am talking as a mining engineer. They occurred on these high mesas on each side, and the ore bodies outcropped on the edges of the mesa, and on the top of the mesa was high country. The ore bodies eventually were found to continue underneath the higher cover, and so there are hundreds and hun-

(Testimony of Blair Burwell.)

dreds of separate ore bodies that run in one side here and came out four miles away on the other side, and accurately there are a thousand ore bodies, all of which become important, so that a good deal—it is this way, [608] Mr. Alioto—the ore bodies that were immediately accessible on the edges of the hill, like this, were the key to the ore bodies that lay further within. So, precisely, there were thousands of ore bodies.

Q. When you say as a matter of opinion, and in view of your experience on the Colorado Plateau, that, say, a 20-ton a day mill capacity, a mill of 20-tons-a-day capacity was a good, feasible operation in the light of the ore bodies as they existed, particularly prior to the time that you got at the Gateway mines?

Mr. Archer: I object to the question as leading, prior to the time that they got it. Nisley and Wilson did not operate until they finished mining.

Mr. Alioto: That is not true.

The Court: Let the witness testify. Ask him the question directly.

Q. (By Mr. Alioto): What is your opinion as an expert on the Colorado Plateau as to the economic feasibility of the operation of a 20-ton-a-day mill at Gateway in light of the ore bodies existing in that area?

A. If you had three per cent vanadium ore and it was less than one-half per cent lime, you could run a 10 to 20 ton mill, and knew your business and knew how to do it—you could maintain a 10

(Testimony of Blair Burwell.)

to 20 ton mill a day and make money. If you had 1½% vanadium ore and it was 3% lime, you could not run a 20 ton mill. [609]

Now, there was both 3% ore, 2% ore, 1% ore and a half per cent ore available in thousands of their ore bodies around that area.

Q. (By the Court): The size of the mill depended upon the character of the ore?

A. The character of the ore.

Q. (By Mr. Alioto): Was there a sufficient quantity of ore in the Gateway area that would have permitted a feasible and economic operation of that mill?

Mr. Holland: At what time, Mr. Alioto?

Mr. Alioto: 1941.

The Witness: As of 1941, as of the period that you are asking me about, and directly concerned with the ownership of lands that existed at that time, I appraised the ore reserves of the Gateway area for the Department of Justice in the Ute Indian land case, and I determined and so reported as a settlement of that multimillion dollar case there was a hundred and sixty some odd thousand tons of ore containing five million, nine hundred and some thousand pounds of vanadium oxide in this portion immediately tributary to the Gateway Alloys Mill. That was this period of time, because the Ute Indian land case involved the ownership at this particular time.

Q. Now, you testified prior to this time that under a leasing arrangement with Gateway Alloys,

(Testimony of Blair Burwell.)

your company removed certain ore from this particular area, is that correct? [610]

A. I think that is correct.

Q. Do you recall the approximate quantity of ore that you removed from that particular area?

A. I think I already testified to that, Mr. Alioto.

Q. Do you recall the general nature of that ore? Was it a good, high-grade ore?

A. It was the highest-grade ore we could get our hands on.

Q. Was it easily accessible?

A. It was laying on top of the ground.

Q. On the assumption that the United States Vanadium Corporation had not taken that ore out during that period of time, what is your opinion as to whether or not that mill with that ore in place would have been an economical and feasible operation?

A. Of course, it surely could because you can read it here in regard to the reports, that after we took this ore away and moved it to Uravan that there was not 20 tons of ore a day available until more ore was found at a higher expense. Therefore, the first outcrop of easy ore had been removed. It is like you eat the first layer of grass in a pasture. You have to grow more grass.

Q. What was the economic effect of removing that first and easily accessible ore from this Gateway area so far as the Gateway mill was concerned?

A. I testified to that. [611]

Q. All right. The record will speak for itself.

(Testimony of Blair Burwell.)

Finally, Mr. Burwell—and I know you have been on a long time and I am happy to say finally, as I am sure you are and so is everybody else—you were interrogated at some length by Mr. Holland, and I think I'm using his exact words here, as to whether you always considered you were a bit a competitor of V.C.A. so far as you were concerned, and I think you said that you did. Did you consider them a bit of a competitor in 1933 when you sold them vanadium oxide and bailed them out of their Peruvian default and deficiencies?

Mr. Holland: I presume, since that is prior to 1938, counsel is trying to open the whole picture again.

The Court: Sustained.

Mr. Alioto: Counsel's question was always. He didn't limit it to 1938. He said "always."

Mr. Holland: When I said "always," I naturally meant within the limits of this case, Mr. Alioto.

Mr. Alioto: That is not what "always" means to me.

If that is the understanding of it, that raises a little different question.

The Court: This case may continue always, but I do not want it to.

Mr. Holland: You wouldn't trip me up on one word, would you?

Q. (By Mr. Alioto): Finally, counsel interrogated you [612] at some length about a situation with respect to a plant at Naturita being closed

(Testimony of Blair Burwell.)

from 1932 to 1938. Would you state the reasons why that plant was closed from 1933 to 1938?

Mr. Archer: I object to that.

The Court: Sustained.

Mr. Alioto: I simply wanted to make a record, if your Honor please.

Q. At the time you left the Union Carbide organization, Mr. Burwell, did they offer you some kind of a consulting contract with certain provisions? A. They did.

Mr. Archer: I object to this, your Honor.

The Court: How is that material?

Mr. Alioto: Because one of the provisions of the contract was that they would give him this consulting position with reimbursement if he promised not to say anything, and I think that is material.

The Court: That is an improper statement to make in the presence of the jury and you should not make that statement. If you want to ask a question, you may ask him a question.

Mr. Alioto: I have the contract itself.

The Court: Let the contract speak for itself. I do not see how that is material.

Mr. Alioto: February 2, 1948, if your Honor please, and we already had a good deal of testimony concerning that period. [613] This complaint is up to July 15, 1949.

Q. I will show you, Mr. Burwell, a copy of a contract executed by W. E. Remmers, Executive Vice-President, United States Vanadium Corpora-

(Testimony of Blair Burwell.)

tion, but not executed by you, under date of February 2, 1948, marked "Personal and Confidential."

Would you be good enough to look at that contract and see if that is a document submitted to you by the Union Carbide Company or one of its affiliates?

A. That is correct.

Mr. Alioto: We will offer it into evidence, if your Honor please. First, we will ask that it be marked for identification.

(Whereupon, the contract referred to was thereupon marked Plaintiff's Exhibit 65 for identification.)

Q. (By the Court): What is the date?

A. 1948.

Mr. Alioto: February, 1948.

The Court: That is after you left the company?

Mr. Holland: You are offering it in evidence only against Union Carbide.

The Witness: Just as I left the company.

Mr. Archer: Have you offered it yet?

Mr. Alioto: No, we are going to have it marked, first, so that we can identify it in this record.

This document has now been identified as [614] Plaintiff's Exhibit 65 for identification. At this time, if your Honor please, we make an offer that it be introduced in the record in this case as evidence on behalf of the plaintiff.

Mr. Archer: I object on the ground it is incompetent, irrelevant and immaterial. The witness has testified he resigned on December 11, 1947,

(Testimony of Blair Burwell.)

which was prior to the date of this. The document shows it was not executed, and if your Honor recalls my examination of Mr. Burwell, I carefully avoided the reasons for his leaving the company and I do not think they are relevant to this case, and if we go into that I do not think Mr. Burwell will like it, I do not think I will like it, and I do not think anybody else will like it.

Mr. Alioto: I do not think counsel should make that statement.

The Court: Objection sustained. Exception allowed.

Q. (By Mr. Alioto): There is just one more question. I anticipate there may be an objection on this, but I would just like to make the record on it.

Mr. Holland: Do you invite us to object?

Mr. Alioto: I do not have to invite you folks to object. You do it spontaneously.

Q. I hand you a series of documents, Mr. Burwell. Would you be good enough to state whether these documents that have previously been offered in evidence and rejected are part of the documents that Mr. Van Fleet handed you that he had taken [615] from the files of the Union Carbide Company? A. Yes.

Q. And he handed you these sometime in 1947 or 1948? A. That is right.

Mr. Alioto: I understand, if your Honor please, that there is some question about the identification number of these exhibits at the moment. So there

(Testimony of Blair Burwell.)

won't be any question as to what we are talking about on the record, these documents are as follows:

A letter from Mr. Van Fleet to Mr. Burwell, dated June 6, 1934, subject, "Paradox Estimates."

(The document referred to was thereupon marked for identification as Plaintiff's Exhibit 67-A.)

A letter of July 26, 1934, from Mr. Blair Burwell, the witness, to Mr. Van Fleet, called "Comparative Estimate on Cost of Erecting and Operating Plants at Uravan and the Site of the V.C.A."

(The document referred to above was thereupon marked for identification as Plaintiff's Exhibit 67-B.)

A document dated July 23, 1934, from Mr. Priestley to Mr. Gormely, copy to Mr. Haggerson and Mr. Price.

(The document referred to above was thereupon marked for identification as Plaintiff's Exhibit 67-C.)

A document dated July 23, 1934, a copy of the same one.

(Whereupon, a copy of the letter dated July 23, 1934, referred to above, was marked for identification as Plaintiff's Exhibit 67-D.)

A document dated August 10, 1934, entitled "Vanadium Situation." It is written by Mr. Van Fleet to Mr. Haggerson.

(The document referred to above was thereupon marked for identification as Plaintiff's Exhibit 67-E.)

(Testimony of Blair Burwell.)

A copy of the first document. One of them has certain initials on them.

A document dated April 5, 1934 to Mr. F. P. Gormely.

(The document referred to above was thereupon marked for identification as Plaintiff's Exhibit 67-F.)

When we get that identification number straightened out, I would like the record to show the specific identification number of the documents as they have previously been offered.

(The Clerk marked the above exhibits Plaintiff's Exhibit 67 for identification and they were given the sub-letters by the Reporter subsequently.)

Mr. Holland: These are being offered only against Carbide, is that correct?

Mr. Archer: I object, your Honor.

The Court: Are you offering them in evidence?

Mr. Alioto: I will offer them in evidence at this point, your Honor, again in connection with the answer of the witness that these are documents handed to him in 1947.

The Court: Objection sustained.

Mr. Alioto: We have no further questions at this time, if your Honor please. [617]

Mr. Archer: Your Honor, two subjects came up, either through the examination of Mr. Holland or Mr. Alioto that I did not go into on my cross-examination.

One was this request from the plaintiff, Conti-

(Testimony of Blair Burwell.)

nental Ore, to purchase in 1943, in November, 1943, and the other was this Atomic Energy Program. I won't waste any time on that, but the first question:

Recross-Examination

Q. (By Mr. Archer): In 1943, Mr. Burwell, I believe you have testified that, in November, 1943, you had a substantial quantity of vanadium oxide on hand and that you were terminating the Government program, is that correct?

A. That is correct.

Q. By terminating the Government program, you mean the Metals Reserve Company program?

A. Yes, not our own operation.

Q. You do not mean that you were terminating the sludge contracts with them in that district, do you? A. No.

Q. They had just started between May and November, 1943?

A. Yes. We called that the Secret Contract Account.

Q. So that operation was just beginning in November, 1943? A. That is right.

Q. And your special secret contract to acquire all the [618] vanadium and uranium-bearing resources had just commenced operation in the early part of 1943, hadn't they?

A. Well, that is a matter of record, Mr. Archer.

Q. That is right.

In Plaintiff's Exhibit 3 in evidence—first, Plain-

(Testimony of Blair Burwell.)

tiff's Exhibit 1 in evidence—it shows the United States Vanadium Corporation produced in 1943 a total of 3,059,000 pounds of vanadium oxide. It also shows that in 1943——

Q. (By the Court): Just a moment. What is vanadium oxide?

A. It continually gets mixed up in this conversation, and I am getting confused, but I will tell you how I view it.

There is no such thing as pure vanadium oxide. We have red cake, which is a sodium-vanadium-oxygen combination. We have fused oxide, which is a fused product of the red cake. We do not have vanadium oxide. I mean, that is technically incorrect; so if you do not want to confuse me, you can speak of red cake or fused vanadium oxide and then I can answer.

Q. The exhibit that shows 1943, 3,059,000 pounds of fused vanadium oxide. Now, that is the product from which ferro-vanadium is made, is it not, Mr. Burwell? A. That is correct.

Q. Plaintiff's Exhibit 3 shows that Union Carbide sold, in 1943, 1,500,000 pounds of ferro-vanadium. A. In 1943. [619]

Q. In 1943. So using your rough kitchen economics or kitchen mathematics that you referred to yesterday, you would divide the vanadium oxide by two to see whether you produced enough vanadium oxide in that year to meet your ferro-vanadium requirements, didn't you?

A. Roughly.

(Testimony of Blair Burwell.)

Q. And when you divide 3,059,000 by two, you get roughly a million and a half?

A. A million—three million and a half.

Q. 3,059,000 really?

A. Over a million and a half pounds. Are you referring to that exhibit?

Q. Yes, here are the exhibits.

A. Let me see our own exhibit.

Q. These are the plaintiff's exhibits.

Mr. Alioto: Just a moment. They are answers supplied by the Union Carbide.

Mr. Archer: You will put them in evidence.

Mr. Alioto: There is no question about that, but they are answers supplied by you folks.

The Witness: Are you talking about 1943?

Mr. Archer: 1943.

The Witness: That is right.

Q. So you produced in 1943——

A. That is right. [620]

Q. You sold more ferro-vanadium in 1943 than you produced vanadium pentoxide, fused black oxide to meet your requirements?

A. But the sales of ferro-vanadium, Mr. Archer——

Q. Is that true or false?

A No, that is not true.

Q. You mean these figures are wrong?

A. They don't cover—if you are trying to impeach my testimony——

Q. No, I am just trying to refresh your recollection.

(Testimony of Blair Burwell.)

Mr. Alioto: Mr. Archer has cut-off the witness three times in the last thirty seconds, your Honor.

The Court: Just a minute. I think it is proper cross-examination.

Mr. Alioto: To cut-off a witness? All right, if your Honor please.

The Court: Go ahead, Mr. Witness.

The Witness: Let us take 1943——

The Court: Just a minute. Let us get down to the earth where the jury and the Court can understand it.

Q. You produced this much—what was the name of that?

Mr. Archer: Fused vanadium oxide.

Q. Something, about three and a half million?

A. That is right.

Q. And you produced vanadium how much?

Mr. Archer: Well, it is sales, actually, of [621] ferro-vanadium of 1,500,000.

The Witness: That is correct, approximately three million pounds. If you take the direct relationship, and if you consider that that vanadium oxide went directly into sales directly at that time, but usually there is a lag of six months, so the production of 1942 goes into the sales of 1943, and it takes approximately anywhere from three to six months to reconcile the sales of ferro-vanadium with the production of ferro-vanadium because there is always three to six months' lag between the year's production of vanadium in the mines and

(Testimony of Blair Burwell.)

the production of vanadium or the sales of ferro-vanadium.

Therefore, what I said at the end of 1943 is entirely correct. At the end of 1943, we had a surplus of vanadium at that particular time. If you go to the next year, 1944, and look at your same figures——

Q. All right. In 1944 the production of fused vanadium oxide, including Durango, is two million two? A. That is right.

Q. Sales of ferro-vanadium, 932,000, just under one-half the production, isn't it?

A. Well, you are reading from another sheet. "Union Carbide and Carbon Corporation, Total Tonnage of All Varieties of Vanadium Sold in the United States, Ferro-Vanadium, Vanadium Oxide." In 1943 there was 1,932,000 pounds of ferro-vanadium sold, and that is correct—if this is correct. I can't identify the sheet. [622]

Q. These are in evidence, subject to correction, whatever the figures show. It shows that you were selling just in ferro-vanadium just about all the vanadium, fused black oxide that you were producing, doesn't it?

A. On account of the lag of production, I can't testify as to your figures, because you have two separate figures. In 1943——

Q. Let me say this, Mr. Burwell, I will have these figures checked. I have the inventory figures here. I will have it checked and if there is any

(Testimony of Blair Burwell.)

change, I will correct it for the record; is that satisfactory?

A. I can't on the spur of the moment, on the stand here, check technical figures. I am sure the figures of production are correct.

Q. Speaking of November, 1943, when you stated you had fused vanadium oxide, you were not the only—when you speak of "you," you mean Union Carbide had fused vanadium oxide on hand?

A. Well, Electro Metallurgical Company.

Q. Yes. I mean the conglomerate group.

A. Yes. Well, what stocks they had accumulated. The ferro-vanadium might have gone back over prior years. They may have been selling ferro-vanadium that went back three years, four years. I have known ferro-vanadium, ferro-silicon and [623] other vanadium that went for years unsold in the warehouses before they finally sell it. These things don't relate—ferro-vanadium don't relate to the production of fused oxide that particular year.

Q. In November, 1943, Metals Reserve Company had a lot of fused vanadium oxide, too, didn't they?

A. I don't know what the Metals Reserve figures are. All I know is at the time I testified we had so much vanadium on hand that we were writing those terminal checks to our miners because we couldn't produce any more vanadium. That is my testimony, and I still stay with it. On figures of production, when you get into technical questions of statistics and ask me to give you an answer,

(Testimony of Blair Burwell.)

I will be glad to do that, Mr. Archer, but then let us get some time to study it. [624]

Q. (By Mr. Archer): I am referring to November 30, 1943. You remember the exhibit we produced yesterday, which was Defendant U's Exhibit R, I believe, which is the November 30, 1943, report for Metals Reserve showing the production from Nisley & Wilson's Gateway vanadium mill for Metals Reserve, showing a total of 69,280 pounds of vanadium oxide sacked as of November 30, 1943, is that not correct?

A. That's correct. Now, are you asking me if that amount of pack was in the hands of Metals Reserve at that time?

Q. Well, it was either on hand or going to Metals Reserve.

A. Not necessarily, Mr. Archer. This is the year it—it might have been shipped—it might have been used three, four, five months before.

Q. You don't know where it went?

A. Well, this is the total year's production.

Q. Up to November 30.

A. And you can't take November 30th and take the whole year and 11 months behind that and say this is what they have got on hand at that time. This is what is produced in 11 months. And during that 11 months maybe all of that, or two-thirds of that, or 25 percent of it, had been shipped out. Maybe it was in steel by this time.

Q. Do you know where it went?

A. Of course not, I don't know where those

(Testimony of Blair Burwell.)

things went. [625] I wasn't responsible for that kind of a figure.

Q. Now,——

A. I sure know what I had on hand at that time.

Q. Now, you testified, did you not, that you had heard that Union did not want to sell vanadium to Mr. Leir because they wanted to keep him out of the vanadium business?

A. That's right.

Q. Now, who told you this, Mr. Burwell?

A. Oh, I heard that from Mr. Van Fleet, I heard that from—I heard that in a dozen conferences. I don't recall exactly which one — in the building, 30 East 42nd Street, New York City.

Q. Sort of a rumor?

A. It was my business to be in those meetings. They weren't formal meetings. I heard it from Mr. Van Fleet, I heard the reference to Mr. Leir—I had never met Mr. Leir—I knew nothing of his business excepting it came up second-handed—I heard from Mr. Jacobi.

Q. (By the Court): Did any of these corporations, now, that you were connected with, make an order, a formal order on policy to that effect, that you know of?

A. No, your Honor. No smart lawyer would let a corporation make a formal order in writing of that kind of thing. One of our instructions was never to write anything down like that. [626]

Q. (By Mr. Archer): Mr. Burwell, you were

(Testimony of Blair Burwell.)

familiar with the fact, were you not, that Metals Reserve Company, United States Vanadium Corporation, acting as agent for Metals Reserve Company, had been selling vanadium oxide to the plaintiff in this action for as much as one year prior to November, 1943?

A. You're telling me. I don't know about it.

Q. Didn't you know that?

A. No, I didn't.

Q. Who was Mr. Moynihan? A. Who?

Q. C. J. Moynihan, Jr.

A. I don't know. There's a Monahan who was one of our clerks.

Q. In the accounting division?

A. Could have been.

Q. Who was W. M. Smart?

A. Oh, Bill Smart was in the accounting department.

Q. W. G. Haldane?

A. Already identified.

Q. J. V. Hynes? A. Another accountant.

Q. T. W. Brock?

A. Superintendent at Durango. [627]

Q. I show you, Mr. Burwell, a letter dated November 14, 1942, United States Vanadium Corporation, C. J. Moynihan, Jr., to Mr. Smart, Mr. Haldane, and Mr. Hynes, to which is attached a copy of a letter dated November 14, 1942, from T. W. Brock to Continental Ore Company, to which is attached a telegram from J. Temple Bridgman,

(Testimony of Blair Burwell.)

Executive Vice President, Metals Reserve Company, to United States Vanadium Corporation.

Mr. Alioto: May I see it?

Mr. Archer: I will show it to you.

Q. (By Mr. Archer): Can you identify those signatures?

Mr. Alioto: We will agree to it. We won't have to waste time on that.

This is a government allocation?

Mr. Archer: Certainly; War Production Board allocated all of it.

Mr. Alioto: Not for private sales.

Mr. Archer: Offer it as the next exhibit in order, the letter just referred to.

Mr. Alioto: We have no objection to that spot sale.

The Clerk: Defendant Union Exhibit 2-G admitted and filed in evidence.

(The letter referred to was thereupon marked Defendant U Exhibit 2-G in evidence.)

Mr. Archer: This is a telegram from G. Temple Bridgman, Executive Vice President, Metals Reserve Company, to United States Vanadium Corporation (reading):

"War Production Board Has Allocated Four Thousand Pounds V2O5 contained in concentrates to Continental Ore Company New York. Accordinly You Are Requested to Arrange for Shipment of Sufficient Concentrates to Fill Such Allocation at the Price of $1.10 Per Pound Contained V2O5

(Testimony of Blair Burwell.)

Delivered FOB Railroad Car Continental Ore Company Plant Upon Payment by Certified Checks Payable to United States Vanadium Corporation Agent for Metals Reserve Company. Your Weights Sampling and Analysis to Be Final and Basis of Settlement.

"G. Temple Bridgman."

Mr. Alioto: Can you fix the date of that communication, Mr. Archer?

Mr. Archer: It has no date on it.

Mr. Alioto: Can't you fix it by reference to the letter?

Mr. Archer: November, '42, I am sure.

Mr. Alioto: '42?

Mr. Archer: '42.

Letter, November 14, 1942, T. W. Brock, Superintendent, to the Continental Ore Company (reading): [629]

"Gentlemen:

"We are enclosing a copy of a telegram just received from Mr. G. Temple Bridgman, Executive Vice President, Metals Reserve Company, Washington, D. C.

"This is to advise you that we have ready for shipment 4,509.5 net pounds of 88.7 percent V_2O_5 vanadium concentrates containing 4,000 pounds V_2O_5, and are awaiting receipt of your certified check in the amount of $4,400 for its release.

"Yours very truly,

"T. W. Brock

"Superintendent."

(Testimony of Blair Burwell.)

Letter from C. J. Moynihan, Jr., of the Government Projects Acting Control Division, November 14, 1942 (reading):

"Dear Mr. Smart:

"We are enclosing a copy of a telegram just received from Mr. G. Temple Bridgman, as well as a copy of a letter to Continental Ore Company in connection with this wire.

"As our present average cost of fused product at this location is $1.48 per pound V_2O_5, we shall appreciate advice from you as to how the amount above the $1.10 authorized by the wire is to be handled.

"In this instance it will amount to .38 per pound [630] V_2O_5 plus the freight to New York, New York.

"Your very truly."

Q. (By Mr. Archer): Mr. Burwell, I hand you a copy of a letter——

Mr. Alioto: May I see it?

Mr. Archer: It is from Mr. Leir to the United States Vanadium Corporation.

Mr. Alioto: No objection.

Mr. Archer: Dated December 31, 1942.

Offer this as defendants' exhibit next in order.

The Clerk: Defendant U's Exhibit 2-H admitted and filed in evidence.

(The letter referred to was thereupon marked Defendant U Exhibit 2-H in evidence.)

(Testimony of Blair Burwell.)

Mr. Alioto: Are you going to read that, Mr. Archer?

Mr. Archer: Yes.

The letter is dated December 31, 1942, from Continental Ore Company, Henry J. Leir, to U. S. Vanadium Corp., Agent, Metals Reserve Company, Durango, Colorado, Attention Mr. T. W. Brock, Superintendent (reading):

"Gentlemen:

"Re: Vanadium Concentrates.

"We wish to refer to your shipments to us of the above material, and should like to draw your attention to the weights of these shipments. [631]

"We found in the two shipments the following shortages:

"First shipment of 27 sacks: Your net weight, 4,561 pounds; our net weight 4,542 pounds; shortage 19 pounds.

"Second shipment, 48 sacks: Your net weight 8,141.40 pounds; our net weight 8,053 pounds; shortage 88.40 pounds.

"So that the total shortage on these two shipments is 107.40 pounds.

"We should very much appreciate your checking the weights on future shipments carefully, in order to avoid such shortages.

"Thank you for your cooperation.

"Continental Ore Company,

"Henry J. Leir."

Q. (By Mr. Archer): Now, Mr. Burwell, in November of 1943, when you heard that the Union

(Testimony of Blair Burwell.)

Carbide had refused to sell vanadium to Mr. Leir, did anyone tell you that Electro Met Sales Corporation had sold vanadium oxide to Mr. Leir in the spring of 1943? A. Nobody did.

Q. You weren't familiar at all with the Electro Met Sales Organization, were you?

A. I wouldn't say so. [632]

Q. Well, where were the offices of Electro Met Sales? A. 30 East 42nd Street.

Q. Where were their district offices?

A. One at Pittsburgh,——

Q. Who were——

A. ——one in San Francisco. They had one—they had a number in New York.

Q. Who ran the San Francisco office?

A. Oh, I don't recall who ran it. It's a matter of record, Mr. Archer.

Q. But you did hear this story—you do remember hearing the story about refusing to sell vanadium oxide to the plaintiffs, I take it.

A. Oh, yes, I heard that.

Q. You are sure of that.

When was the last time you heard that story—the last time?

A. The last time?

Q. The last time.

A. Well, I left the corporation in '47, and obviously I wouldn't have heard it after that time.

Q. Well, did you hear it before that time, between '43 and that time?

A. I think I testified I did.

(Testimony of Blair Burwell.)

Q. Did anybody tell you that in December of 1946 the [633] Electro Metallurgical Sales Corporation had entered into a contract to sell Mr. Leir all his domestic manufacturing requirements of vanadium oxide?

A. What date are you talking about, Mr. Archer?

Q. December of 1946.

A. December of '46?

Q. Yes. A. No.

Q. This was before you left the company?

A. No.

Q. I show you a contract and ask you if you can identify the signatures on that contract.

Mr. Alioto: You don't have to waste time with signatures, Mr. Archer. Just let me see it.

Mr. Archer: Offer it as defendants' exhibit next in order.

Mr. Alioto: We have no objection to this document.

Mr. Archer: Offer this as defendants' exhibit next in order, a contract dated December 10, 1946, between Electro Metallurgical Sales Corporation and the Continental—it is a contract between Electro Metallurgical Sales Corporation and the plaintiff, Continental Ore Company, signed by Henry J. Leir and Herbert M. Rich, in which Electro Metallurgical Sales Corporation agrees to sell and Continental Ore Company of New York, New York, agrees to buy "buyer's domestic [634] manufacturing requirements of vanadium oxide (fused)."

(Testimony of Blair Burwell.)

The Clerk: Defendant Union's Exhibit 2-1 [634] admitted and filed in evidence.

(The contract referred to was thereupon marked Defendant U Exhibit 2-I in evidence.)

[See Book of Exhibits.]

Q. (By Mr. Archer): Mr. Burwell, is it still your testimony that it was the policy of Electro Metallurgical not to sell vanadium oxide to the plaintiff in this case?

A. At the time I spoke to you I testified it was the policy as I heard it.

Q. You mean in November, 1943?

A. That is right.

Q. And that only, only that one month can you testify to? A. I said at that time.

Q. That's right.

Now, Mr. Burwell, you have testified in regard to the dispute you had, apparently, with some of the people in the uranium industry and with Mr. Gustafson of the Atomic Energy Commission as to the proper way of developing the atomic resources.

A. It wasn't a dispute with Mr. Gustafson personally.

Q. No. But you disagreed with his policy?

A. I disagreed with the policy that was announced by Mr. Gustafson who spoke, I presume, for the Atomic Energy Commission. [635]

Q. Now, at that time wasn't the dispute this question, Mr. Burwell: simply whether the Atomic Energy Commission was going to exploit foreign uranium resources, keeping the United States ura-

(Testimony of Blair Burwell.)

nium resources in this country for future needs, or whether they were going to allow the Colorado Plateau to be exploited?

A. It wasn't so announced in their—no, to answer your question, it was not.

Q. Now, my second question, Mr. Burwell: You have referred to this advisory committee to the Division of Raw Materials which was headed by Mr. Gustafson—— A. No.

Q. Isn't that right? A. No.

Q. It wasn't headed by him, but of which he was a member? A. Go ahead.

Q. Now, wasn't the advisory committee members Donald McLaughlin of the Homestake Mining Company—he was one member? A. I testified.

Q. That's right. G. Temple Bridgman, whom we already talked about, and who was head of the Metals Reserve Company, was another member, isn't that right?

A. Well, I testified, as I recall, two or three. [636] It is certainly a matter of record, Mr. Archer. You can refer to the record.

Q. Well, Everett de Gaullier of the McNaughton Company in Dallas?

A. Yes, I believe he was on it.

Q. And Antone Gray of Endicott Copper Company? A. He was on it.

Q. Wilbur Judson of the Texas Gulf Sulphur Company? A. I don't recall.

Q. Robert McConnell of the McConnell Foundation? A. I don't recall.

(Testimony of Blair Burwell.)

Q. Fred Searles, Jr., of the Newmont Mining Company? A. I do recall.

Q. Clyde Williams, of the Bethel Memorial Institute? A. I don't recall his name.

Q. Now, do you know whether these people agreed with Mr. Gustafson's policy or not?

A. I wouldn't know. All I know is the policy that Mr. Gustafson announced.

Q. Referring to your testimony this morning and the red cake, the intermediate vanadium oxide which you procured from the Anaconda Copper Company, was the man you talked to at Anaconda F. O. Case? A. Who?

Q. F. O. Case—C-a-s-e? [637]

A. No.

Q. You said——

A. I did talk to Mr. Case in New York in other conferences. I imagine altogether I was in 20 or 30 conferences at various times, Mr. Archer, in regard to the purchase of this material. Mr. Case —I was in a meeting with Mr. Case in New York. I recall it now that you brought it up.

Q. Do you recall whether the Anaconda Copper Company first approached you for the sale of this product, or whether you first went to them?

A. I don't recall the manner of approach, no.

Q. As a matter of fact, when you got this red cake from the Anaconda Copper Company you used it, didn't you? A. We fused it.

Q. You fused it in the Rifle plant, is that right?

A. That's right. We didn't necessarily use it.

(Testimony of Blair Burwell.)

Q. What was done with it? Is it still there?

A. Well, this started—what was the date of the Anaconda contact?

Q. The contract is May of 1940, I believe, and the first shipment, according to the exhibit, was in 1941. The Rifle plant, you recall, opened in '41.

A. All right (examining document).

Mr. Alioto: If your Honor please, I don't know —may this chart go into evidence that he is looking at? [638]

Mr. Archer: I don't think it is—I don't know anything more about it than you do.

Mr. Alioto: Well, I am just wondering whether it shouldn't go into evidence; if it is a U. S. Vanadium Corporation document and he is looking at it, I think it should go into evidence.

The Witness: I have been troubled by some of these statistics that you have been throwing at me, and here's some of the answers, if you will be patient when examining.

In 1940 we had the difference between 1,000,000 pounds of V_2O_5, 500 pounds of V. that was sold by Electro Metallurgical Company, and 2,400,000 pounds, approximately, that we had either produced or purchased from Anaconda, or—in other words, we had accumulated in that year, as well as the other two years, close to 4,000,000 pounds of vanadium oxide that wasn't sold, or wasn't used. and the vanadium oxide that was purchased in 1940 would undoubtedly be included in our surplus stocks, and there is an unsold surplus of V_2O_5 pro-

(Testimony of Blair Burwell.)

duced in oxide, over the vanadium that was sold in ferro-vanadium and accumulated over '38, '39, and '40, of over double our production, and here's the statistics.

Q. (By Mr. Archer): Then it was——

A. This is prepared by——

Q. Then it was sold in '41 and '42, wasn't it?

A. It was sold when the war came along.

Q. Well, haven't you already testified, Mr. Burwell, it was your practice to produce vanadium oxide in one year and carry it over and put it into ferro-vanadium the next year and sell it?

A. It happened that way. It wasn't our liking to do it, because always when we produced vanadium in excess of our sales we had a problem on our bankers and our accountants, who worried as to whether to lay crews off——

Q. Did you like it in 1943?

A. We never liked it.

Q. All right. Now, Mr. Burwell, I have only one more question. A. Good.

Q. You and I both know who the other promoters were, don't we? A. Yes, I think so.

Q. Do you know whether or not they had any connection with the Continental Ore Company?

A. Oh, no, no.

Mr. Archer: I have no further questions.

Further Redirect Examination

Q. (By Mr. Alioto): One other thing: The fact of the matter is that you did close down your

(Testimony of Blair Burwell.)

Uravan plant in the beginning of 1944, didn't you?

A. That's right. [640]

Q. And you laid off those miners?

A. Due to surplus vanadium, yes, sir. We had a warehouse full of vanadium.

Q. You were looking at a document there. Identify that document for us, would you, please? Where did it come from?

A. This is a graph—this was prepared under my direction by one of our engineers, Mr. Charles Yetter, after going carefully over the Electro Met Sales, our western production, and all the figures that had to do with our sales and production of vanadium as pertained to our mines out West, and it was prepared at my direction so that we could study and know what our sales problem was to keep the mines running, and this is a document that was prepared for that purpose.

Q. (By the Court): When was it prepared?

A. This was prepared—I think the date of this, your Honor, was about 1944-46—May, 1946, by Mr. Charles W. Yetter, one of our mining engineers.

Mr. Archer: May I ask one question on voir dire?

The Court: Yes.

Q. (By Mr. Archer): Mr. Burwell, this was prepared in connection with the government case in which you were indicted, to show production at [641] that time, and it ends with the period of the government indictment, and was prepared about

(Testimony of Blair Burwell.)

the time it came out, and that was the purpose of its preparation, wasn't it? A. No.

Mr. Alioto: I will stipulate to that and offer it on that stipulation.

Mr. Archer: Well, Mr. Burwell says "No."

Mr. Alioto: I am prepared to say "Yes." I will take that stipulation and say that is a sufficient foundation for its introduction; that it was prepared by them.

We will offer it in evidence, if your Honor please.

Mr. Archer: I object, your Honor. The man who prepared it is no longer with our company. I don't know whether it is correct. All the production figures for the years '38 to '49 Mr. Alioto has from our company and our accountants, and this will add nothing; it goes far earlier than 1938.

Mr. Alioto: I will offer that portion, then, from 1938 on, so there will be no question about it.

The Court: Objection sustained. It is cumulative.

Mr. Alioto: I don't know whether it is cumulative, if your Honor please, because there are certain figures here of world production, total U. S. imports, and I submit that it puts it in rather graphic form, and would be rather helpful to the jury, if your Honor please. I would like it——

The Court: Objection sustained. [642]

Mr. Alioto: All right, if your Honor please.

The Court: Exception allowed.

Mr. Alioto: May we have it marked for identification?

(Testimony of Blair Burwell.)

The Clerk: Plaintiffs' 66 marked for identification.

(The graph referred to was thereupon marked Plaintiffs' Exhibit No. 66 for identification.)

Mr. Alioto: And may the record show that the objection was sustained to the Exhibit 66 marked for identification, if your Honor please?

We have no further questions.

The Court: Anything further?

Mr. Holland: No.

Mr. Alioto: May the witness be excused, if your Honor please?

The Court: Very well.

I don't know whether we can get along without you.

The Witness: Thank you, your Honor, for putting up with me for four days on this stand here, and I know it has been as hard on me as it has been on everybody else, and I——

The Court: Adjourn until Monday morning, ten o'clock.

(Whereupon an adjournment was taken until Monday, June 9, 1958, at 10:00 o'clock a.m.)

Monday, June 9, 1958, 10:00 o'clock a.m.

The Clerk: Continental Ore Company, et al, versus Union Carbide Company, et al, further trial.

Mr. Holland: Ready.

Mr. Alioto: Ready.

If your Honor please, I am informed that there is a bit of confusion in the record relating to certain exhibits which were offered and excluded by the Court. Those are exhibits that we believed had been marked earlier but that the identification mark had been somehow misplaced. It now appears that they were not marked, and in order that they may be now identified in the record, I would respectfully request that they be marked Plaintiff's Exhibits 67-A, B, C, D, E and F. This is a series of correspondence between the top managing officials of the United States Vanadium Company, 67-A being correspondence between Mr. Van Fleet and Mr. Burwell dated June 6, 1934——

The Court: Well, it doesn't matter—the order will be made. You will be permitted to have them identified.

Mr. Alioto: All right, if your Honor please. I would suggest, then, that these documents be marked 67-A to -F and that they be preserved in the order and that the record will reflect that these are documents that were offered last Friday in connection with the statement that there appeared to have been some question about whether or not the identification [645] number was on those documents.

(Plaintiff's Exhibits 67-A, -B, -C, -D and -F were marked for identification.)

Mr. Alioto: Now, if your Honor please, in order to complete the record with respect to the certain testimony given by the witness Burwell, we would like to offer at this time, as against United States

Vanadium Corporation, certain inter-office correspondence dated September 1, 1938, from Mr. J. R. Van Fleet to Mr. W. G. Haldane, who was the superintendent of United States Vanadium Corporation plant in Uravan, and copy of that letter was also sent to Mr. Burwell.

The Court: What is the date of the letter?

Mr. Alioto: The date of the letter is September 1, 1938. We will offer it in evidence.

The Clerk: Plaintiff's Exhibit 68 admitted and filed into evidence.

(Letter, 9/1/38, Van Fleet to Haldane, received in evidence as Plaintiff's Exhibit 68.)

[See Book of Exhibits.]

Mr. Alioto: There is a short paragraph of this letter I would like to call to the attention of the jury. First, to set the background for it, this is a letter from Mr. Van Fleet to Mr. Haldane and to Mr. Burwell dated September 1, 1938. The subject: Sludge, Vanadium. It is an airmail letter marked "Confidential". [646]

"Dear King:

"You will recall, or at least I recall talking with Blair, about the possibility of preparing a vanadium product containing silica, alumina and iron, which could be very cheaply done. I had in mind somewhere around 25c to 30c per pound for the contained V_2O_5. A vanadium product such as this could be reduced directly in the electric furnace with the proper fluxing, resulting in the desired alloy. Fused V_2O_5 can also be used with the proper additions of quartzite, alumina, et cetera, but for

the present, at least, we will not be able to use fused oxide because we cannot charge the regular price for vanadium in the alloy. It is considered that this condition will not last over a great period of time, and that we ultimately can use the fused oxide and charge the regular price for vanadium in the alloy."

Then the last paragraph reads as follows:

"Confidentially, the reason why we must use some product other than fused oxide in this alloy to start with is that we cannot sell vanadium for less than the market price, unless we can show that we do not use fused oxide and that we are using an impure by-product which cannot be used in any other way. For several years I have been trying to have the sales price of [647] vanadium considerably reduced, and this would be an entering wedge. It has always been my opinion that if we were able to reduce the sales price of vanadium, it would encourage its use.

"Very truly yours,

"J. R. Van Fleet."

We offer at this time, and we can call it to the attention of the jury and the Court later, interoffice correspondence from Mr. Kett of Vanadium Corporation of America to Mr. E. D. Bransome, its president, dated June 26, 1941, relating to a conference between Mr. Van Fleet and the writer, Mr. Kett.

Mr. Archer: Are these all V.C.A.?

Mr. Alioto: Yes.

Mr. Archer: V.C.A. exhibits?

Mr. Alioto: That's correct.

Mr. Archer: Offering them against V.C.A.?

Mr. Alioto: Yes.

Counsel has no objection and we will offer the document into evidence, if your Honor please.

The Court: Admitted.

The Clerk: Plaintiff's Exhibit 69 admitted and filed into evidence.

(Inter-office correspondence June 26, 1941, from Kett to Bransome received as Plaintiff's Exhibit 69.)

[See Book of Exhibits.]

Mr. Alioto: We offer as our next exhibit in order [648] a copy already having been exhibited to counsel, a copy of an inter-office correspondence between F. F. Kett, the general manager of the mining division of Vanadium Corporation of America, to Mr. E. D. Bransome, its president.

The Clerk: Plaintiff's Exhibit 70 admitted and filed into evidence.

(Inter-office memo 8/31/41, Kett to Bransome received in evidence as Plaintiff's Exhibit 70.)

[See Book of Exhibits.]

Mr. Alioto: The next document is dated June 13, 1940, between Mr. Robert Sterling of the Vanadium Corporation of America to Mr. Frederick F. Kett of the Vanadium Corporation of America.

The Clerk: Plaintiff's Exhibit 71 admitted and filed into evidence.

(Inter-office memo 6/13/40, Sterling to Kett, received as Plaintiff's Exhibit 71.)

[See Book of Exhibits.]

Mr. Alioto: We now offer into evidence document of the United States Vanadium Corporation. This is inter-office correspondence dated December 27, 1941, between Mr. J. E. Weston to Mr. King Haldane relating to the Lyen Ore, so-called. We will offer that into evidence.

The Clerk: Plaintiff's Exhibit 72 admitted and filed into evidence.

(Inter-office memo 12/27/41, Weston to Haldane, received as Plaintiff's Exhibit 72.)

[See Book of Exhibits.]

Mr. Alioto: Finally, we offer into evidence, if your Honor please, a document dated May 10, 1944, written by Mr. Priestley of the Union Carbide group of corporations to Mr. DuDot of the sales corporation in Pittsburgh, to Mr. Remmers, Mr. Lewis and Mr. Portmann, marked "Confidential." It is a document relating—without characterizing it, I will offer it into evidence.

Mr. Archer: What is the date of that?

Mr. Alioto: 1944.

The Clerk: Plaintiff's Exhibit 73 admitted and filed into evidence.

(Letter 5/10/44, Priestley to DuDot, Remmers, Lewis and Portmann, received in evidence and marked Plaintiff's Exhibit 73.)

[See Book of Exhibits.]

Mr. Alioto: This is a rather short letter and I

would like to read a short paragraph from it, from Mr. Priestley.

"There are several reasons for our having made this decision. We are selling ferro-tungsten and tungsten metal powder far in excess of our own supplies of tungsten ore, and to meet this demand, we are purchasing large amounts of ore from Metals Reserve. We are fearful that the trend in supplying ores with combined reducing agents will lead to direct reduction of other metals such as vanadium, columbium, and chromium. As a matter of fact, we have recently [650] refused to supply vanadium oxide and columbite with combined reducing agents on the ground that we are primarily in the ferro-alloy business and are not interested in the sale of ores, especially when we can make use of our large smelting facilities. You can readily understand that we do not want to promote any practice in steel making that would be in competition with our own ferro-alloy business, which we would be doing if we encouraged the reduction of metals from ores by steel makers.

"We may have to sacrifice some business which would go to the people who sell ore in any event, but we will not be breaking down our own business which is smelting ores into ferro-alloys. It will be our task to convince our customers that the most practical and economical way to make steel is to use ferro-alloys.

"I have written you at length on this subject so you will understand the reason for making this policy."

The letter is to Mr. Remmers—the letter is to Mr. DuDot from Mr. Priestley, marked "Confidential".

Mr. Nisley, will you be good enough to take the stand, sir? [651]

FRANK NISLEY,

called as a witness by and on behalf of the plaintiffs, having been duly sworn to tell the truth, the whole truth and nothing but the truth, testified as follows:

Direct Examination

Q. (By Mr. Alioto): Mr. Nisley, will you be good enough to state your full name for this record?

A. My name is Frank Nisley, Jr.

Q. Where do you reside, Mr. Nisley?

A. In Grand Junction, Colorado.

Q. Were you one of the partners in the company Nisley and Wilson that operated at Gateway?

A. I was.

Q. I think we have the map before you so we can fix this location again. Would you be good enough to point to the approximate location of the mill that you operated at Gateway?

A. Yes, the mill is at the junction of West Creek with the Dolores River at Gateway.

Q. Mr. Nisley, before we get down to questions relating specifically to the mill operated by you at Gateway, I want to go a little bit into your background of the vanadium industry and what ex-

(Testimony of Frank Nisley.)

perience you have had. Were you, first of all, ever connected with a vanadium mill at Rifle?

A. Yes, I was. [652]

Q. Will you be good enough to point out the approximate location on that map, if you can do it, of that vanadium mill at Rifle?

A. It is not shown on this map. The mill is about 11 miles northeast of Rifle.

Q. It would be in the area beyond the map?

A. That is right.

Q. Were you and your father engaged in some kind of operation there?

A. My father owned an interest in the Garfield Vanadium Corporation. That corporation owned a large group of claims adjoining the claims of the United States Vanadium Corporation. The company was organized about 1927, about the time the United States Vanadium Corporation began their operation there.

Q. What year was it that you did some work at the Rifle Vanadium Company mill?

A. We began in 1938. My father was very interested in trying to find a way of putting that property into operation and he had investigated all the then known milling processes, trying to find some process that could be applied to the property there.

Q. Did you personally work on some kind of process that could be applied to a small mill property?

A. I did. We found that the process that was

(Testimony of Frank Nisley.)

the most [653] commonly used in those days was known as the salt roast process. The process itself was not too complicated, the only complicated thing being the roasting requirements.

Q. Would you be good enough to tell us in non-technical language, Mr. Nisley, what this salt-roast process consisted of?

A. The salt-roast process consisted of reducing the crude ore to sand-grain size, and then mixing this product with ordinary salt, just like table salt, and roasting that material, forming a sodium vanadate. The salt broke down and the sodium and vanadium combined to form a soluble material, dropping it into water, then draining off the water. The vanadium went into solution and was later precipitated by the addition of a slight amount of sulphuric acid, and it came out in the form of the red cake that has already been introduced.

Q. Yes, we have identified the red cake in one of these bottles.

Did that process being used at the time require rather expensive equipment?

A. Most of the plants at that time were using what is known as the Skinner roaster; my father was told by the people who made it that it was not economical to use it in a plant of a size less than about 50 tons per day.

So our problem was to find some type of roaster that we could apply on a smaller scale than that.

Q. Did you do something about that problem, Mr. Nisley? A. I did.

(Testimony of Frank Nisley.)

Q. What is it you did?

A. In 1938, during the time I was in college, I spent quite a little time making a study of it, and in 1939 I dropped out of college and spent all my time in attempting to work out a roasting plant that would do this. We came across a roaster that had been used in the lead and copper industry known as a sintering hearth.

The only problem we had with that was, in the way it was being used in the industry, it was a reducing roast and we needed an oxidizing roast. It took quite a lot of experimental work to convert the roaster to one that we could use.

The sintering hearth is nothing more nor less than—it works like a coal stove with the exception that instead of drawing the air up through the grates, the air is drawn down through the grates. We built a little experimental laboratory model. It was a foot square and consisted of a metal box with grates in the bottom and a duct underneath which was hooked to an exhaust fan. The mixture of crude ore with salt, sawdust and coal was placed on the grates and the coal and sawdust burned in the ore by drawing the air down through it. The roaster was very inexpensive. It was built very cheaply.

Q. Did you in August 1939 make some connection with a mill we have already heard about in this case called the [655] Mesa Vanadium Company?

A. We did. At the time we got through with

(Testimony of Frank Nisley.)

the laboratory experiments, we decided to try to carry the experiments on on a little bigger scale, and at the time we didn't have any equipment at Rifle at all. My father was able, together with some other Grand Junction businessmen, to buy a plant that was located at Slick Rock.

Q. Will you be good enough to point out that Slick Rock location for us? We have already had some testimony about that.

A. Yes. It is right at this point where Disappointment Creek meets the Dolores River.

Q. You are showing us that portion of the map marked Slick Rock. What did you do in connection with that Slick Rock mill?

A. Well, the mill had quite a little equipment that we were going to need in our process, so we moved it down there and began to install a larger roaster unit than we had been using in the laboratory experiments. We carried this out and carried the experimental work out to where we thought it was satisfactory, and Mr. Tellum was called in by the Mesa Vanadium Company.

Q. Who was Mr. Tellum?

A. Mr. Tellum was an independent engineer residing in Denver who had had considerable experience in the vanadium [656] industry. He had been formerly employed by the Vanadium Corporation of America in Peru to try to—in the capacity of working out a method of concentrating their ores there. He was called to the plant and spent several days making an investigation of it, ending up in

(Testimony of Frank Nisley.)

a report to the company, which report said that in his opinion the process was satisfactory and he recommended the type of equipment then that should be put in, what we already had, in order to put it in operation.

Q. You then did put that in operation?

A. The Mesa Vanadium people were offered an agreement by Mr. Simpson and Mr. Claybaugh, who were contractors and experienced mill people that they would put in the necessary equipment and operate the plant for an interest in it, and this offer was accepted.

Q. After that did the United States Vanadium Corporation figure in this operation in any manner? A. They did.

Q. What happened?

A. The first product that was made there was shipped to the United States Vanadium Corporation.

Q. (By The Court): Was shipped out?

A. Yes. A few days after that a meeting was called by Mr. Claybaugh of Mesa Vanadium Company and I was asked to attend and he explained at that meeting that—— [657]

Mr. Archer: Your Honor, I think this is getting into the realm of hearsay and I object to it.

The Court: Yes.

Q. (By Mr. Alioto): Regardless of what may have been said at that meeting, Mr. Nisley, what happened after that meeting, so far as any par-

(Testimony of Frank Nisley.)

ticipation of United States Vanadium Corporation was concerned?

A. The United States Vanadium Corporation made an offer to the Mesa Vanadium Company to take over the plant. They would do some more experimental work there, and in the meantime use it for a stockpiling plant. They would pay them, I believe it was, five cents a pound royalty on all ores that were stockpiled.

Q. Did they take over the plant?

A. They did.

Q. What happened after that?

A. I never operated after that.

Q. Where did you go after that?

A. I went to Rifle. During the time I had been working at Mesa Vanadium Plant, Rifle Vanadium Corporation had installed this milling equipment there. At that time there was a market for any vanadium ore that would run in excess of five percent V_2O_5 and they were trying to mechanically concentrate the ore there. It had not proven a success, and so I went there to install the rest of the equipment along with the equipment in [658] the plant already there.

Q. In other words, you installed the type of equipment that had been used down at Mesa?

A. That is right.

Q. What happened there?

A. Well, we got into production in the spring of 1940, just prior to the Embargo Act, and we were being offered $1.35 a pound for material then.

(Testimony of Frank Nisley.)

Q. In what market?

A. Well, it was foreign market.

Q. What was the price in the local market at that time?

A. Well, about 65 to 70 cents a pound. The Embargo Act went into effect just prior to our first shipment, and so we lost our market for the product then.

Q. Then did you have some connection with a company called the Loma Vanadium Mill?

A. Yes. To tie these together, at the time we lost our market, we applied for a local market and finally found one through Mr. Balsley, who was buying for the Vitro Chemical Company. He bought our product at 70 cents a pound and so we closed the Rifle plant down because we couldn't operate at that price, and looked for another outlet for our material. It was during that search that we got in touch with Continental Ore Company.

Q. And Mr. Henry J. Leir, the president of that company? [659]

A. Mr. Leir came to Rifle.

Q. Without going into any conversations you may have had with Mr. Leir, did you make some kind of arrangement with Mr. Leir at that time?

A. He agreed to buy our product at, I believe it was, a dollar a pound for the fused vanadic oxide.

Q. Was that higher than the price on the local market at that time? A. Yes.

Q. Approximately how much higher?

(Testimony of Frank Nisley.)

A. I would say about 20 cents a pound higher.

Q. What did you do with this arrangement under Mr. Leir? Just state the facts with respect to that.

A. As I previously stated, we were closed down at the time, and Mr. William Morrison had become interested in the area around Yellow Cat, and he had decided——

Q. Can you point out on the map where the Yellow Cat area is?

A. Yes. It is in this district below Thompson, right in through here.

Q. It is in the district that is called Thompson on the map, the northernmost part of the map, is that it? A. That is right.

Q. Did you have some connection with that company?

A. Mr. Morrison—of course, at that time the ore in [660] the Yellow Cat district was being mined for the high grade—for high grade ores. There was no market for mill ores. The high grade ore was being purchased by Mr. Balsley.

Q. For Vitro?

A. For Vitro Chemical Company.

Q. Vitro was a ceramic company, is that right?

A. That is right. Mr. Morrison was mining ore there and he decided he would build a mill to furnish a market for the mill grade ores.

Q. Was the United States Vanadium Company buying——

The Court: Who was Mr. Morrison?

(Testimony of Frank Nisley.)

A. Mr. Morrison was an independent operator, your Honor.

Q. (By Mr. Alioto): Now, was the United States Vanadium Corporation buying any mill grade ore in the Yellow Cat district at that time?

A. Not at the time Mr. Morrison started his operations.

Q. Then Mr. Morrison built a mill, did he?

A. He did. He contacted Mr. Tellum in Denver and Mr. Tellum recommended to him that he use a process that we had been using at Rifle, and that he, Mr. Tellum, suggested further that he contact—

Mr. Archer: Your Honor, I object to the conversation with a man in Denver.

Q. (By Mr. Alioto): Without going into the conversation, as a result of that conversation, was there a contact [661] made between you and Mr. Morrison?

A. Mr. Morrison contacted me and asked me if we would do the experimental work on some of his ore to see if the process was amenable to treatment of this ore, which we did.

Q. Did you do that work? A. I did.

Q. And did you come to a conclusion about whether the process was feasible for that ore?

A. I did.

Q. What was that conclusion?

A. Mr. Morrison decided to install the equipment and asked me if I would go to Loma with him and help him get started.

Q. Did you install that equipment at Loma?

(Testimony of Frank Nisley.)

A. We did.

Q. At the time you installed that equipment at Loma, was the United States Vanadium Corporation buying ore in the Yellow Cat district?

A. Not at the time we started.

Q. Then did you start to produce vanadium oxide in that mill? A. We did.

Q. Did you make any arrangement with the plaintiff, the Continental Ore Company at that time?

A. Well, I had after the contact with Mr. Leir —he wrote [662] us confirming his offer and I put Mr. Morrison in contact with Mr. Leir.

Q. Was an arrangement made to sell that ore to Mr. Leir and the Continental Ore Company?

A. There was.

Q. Then what happened?

A. The plant was reducing vanadic oxide.

Q. What capacity was the plant?

A. About 10 tons a day.

Q. Ten tones of ore per day?

A. Of ore per day.

Q. Then what happened?

A. Well, in making a report to Mr. Morrison, there were some mechanical things in the mill that I felt should be changed, and I made a report telling him his recoveries could be increased considerably by certain changes.

Q. At the time of that report was United States Vanadium Corporation buying in the area?

A. The United States Vanadium had established

(Testimony of Frank Nisley.)

an ore-buying station at Thompson and they were beginning to purchase ore in the area.

Q. Where was the closest mill of the United States Vanadium Corporation from that ore-buying station at Thompson?

A. Well, it was at Uravan.

Q. Down in the area of Uravan, and the ore station was established at Thompson? [663]

A. That is right.

Q. And the Loma mill was right next to the ore bodies, was it?

A. No. The mill was approximately just outside of Uravan.

Q. Were those ore bodies tributary to the mill?

A. They were.

Q. And what happened after the United States Vanadium Corporation started buying there?

A. Mr. Morrison told me that he——

Mr. Archer: I object to any conversation.

Q. (By Mr. Alioto): Regardless of what he told you, just tell us what happened. Did Mr. Morrison continue that operation?

A. No, Mr. Morrison sold the operation.

Q. To whom? A. To Mr. Ackerman.

Q. Did he continue it?

A. Well, I left Mr. Morrison just prior to the sale to Mr. Ackerman.

Q. Do you know whether the mill was in operation? When did you leave?

A. I left in December of 1940.

(Testimony of Frank Nisley.)

Q. Do you know whether that mill was in operation seven or eight months later? [664]

A. It was not. We bought the equipment from the mill about eight months later.

Q. The mill itself had closed down and you bought the equipment, is that it?

A. That is right.

Q. Getting down to your partnership arrangement with the Gateway Alloys, did there come a time in 1941 when you formed a partnership for the purpose of operating the mill at Gateway?

A. There did.

Q. Who were your partners in that arrangement, Mr. Nisley? A. Mr. Hayes Wilson.

Q. What was his background?

A. Mr. Wilson had been associated with us in the plant at Rifle.

Q. Did you make some kind of arrangement to operate a mill there?

A. Yes. During the time I was employed at Loma, Mr. Brown, who was the manager of the Gateway Alloy Company, had spent a lot of time watching this plant in operation, and he approached me as to whether I would be interested in going to Gateway and installing roasting equipment there.

Q. Did you agree to do that? A. Yes.

Q. Did you then form this partnership with Mr. Wilson? A. That is right. [665]

Q. Did you then install the equipment in the mill?

A. Yes, Mr. Wilson and I made a contract with

(Testimony of Frank Nisley.)

the Gateway Alloys Company and installed the roasting equipment in the plant. [665-A]

Q. Would you give us some description of that mill, Mr. Nisley, with respect to its capacity and its general physical attributes?

A. Well, the mill was—the crushing equipment and accrued ore—I mean, the ore equipment was capable of processing probably 30 to 50 tons a day. The only limiting factor there was the roasting equipment. And it was a well-built, little plant.

Q. Did you install any roasting equipment in it? A. Yes.

Q. Now, then, approximately when was it that you began operations in Gateway?

A. We began installing equipment, I believe, in April of 1941, and due to road conditions there we were unable to actually start operations until, I believe it was, around May 20 of that year.

Q. May 20 of 1941? A. That's right.

Q. Before we get into your operations, Mr. Nisley, would you be good enough to state the facts, for the record, respecting the ore bodies that were tributary to that mill?

A. At the time Mr. Wilson and I made the investigation for the plant, it was our conclusion that there were large ore bodies tributary to the plant, within a distance of 18 to 20 miles in all directions. Gateway gets its name from the fact that a lot of these canyons from these plateaus lead right into Gateway, and it's just a natural spot for a mill because of that condition. And, of course,

(Testimony of Frank Nisley.)

there was a good water supply there, which was unusual. It was closer to Grand Junction than any other mills were at the time. There were large bodies of high-grade ore being mined there previous to that time.

Q. Now, we already have some testimony from Mr. Burwell about that area, Mr. Nisley, so there is no sense in repeating it. But let me ask you whether you were aware at the time that you started operating here that the United States Vanadium Corporation was mining the Gateway ore deposit?

A. Mr. Brown had told us, at the time we asked whether he would be interested in going down there, that he had leased the mines of the Gateway Alloys to the United States Vanadium Corporation until July 1 of that year, 1941.

Q. All right, you started operation about May of 1941, is that it? A. That's right.

Q. Then did you have an opportunity to observe the mining being done there by the United States Vanadium Company?

A. We did. We went over and looked over the mines while we were at Gateway.

Q. What were they doing there?

A. Well, the property had been previously mined for high-grade ores, and the lower-grade mill ores had been placed on [667] dumps there by the miners. There was a lot of that type of ore there. And, of course, the United States Vanadium was picking up that ore and hauling it to the

(Testimony of Frank Nisley.)

Uravan—they were stripping the easily accessible ore inside the mines and taking it——

Q. You say they were hauling that ore to Uravan. Would you be good enough to tell us how far Uravan was, approximately, from that ore deposit, the Uravan mill of United States Vanadium Corporation, that is?

A. Well, from the Gateway Alloy property there is a couple of deep canyons that had to be crossed——

Q. Just trace it out on that map, if you will, sir.

The Court: Just answer the question, how far was it?

A. It was about, I think, 35-40 miles the way the road——

Q. (By Mr. Alioto): Over what kind of territory? A. Very rough terrain.

Q. And how far was your Gateway mill from that deposit? A. About 18 miles.

Q. Then did you have some kind of arrangement with the plaintiff company at the time you started your operations at the Nisley and Wilson plant at Gateway?

The Court: Pardon me just a moment. I didn't get the name of this witness.

Mr. Alioto: Frank Nisley.

The Court: How do you spell it? [668]

Mr. Alioto: N-I-S-L-E-Y.

The Court: N-I-S-L-E-Y?

(Testimony of Frank Nisley.)

Mr. Alioto: Correct. Frank Nisley. His partner's name was Hayes Wilson.

The Court: All right.

Q. (By Mr. Alioto): Now, the question is at the time you started in at the Nisley and Wilson plant, did you have some kind of an understanding with the Continental Ore Company or were you selling your materials elsewhere?

A. Well, Continental Ore had, of course, been buying—had offered to buy the product, I think, at a dollar a pound.

The Court: I didn't get you.

A. I said the Continental Ore Company at that time had offered to buy the product at a dollar a pound. Mr. Brown, who was the President of Gateway Alloys, had contacted United States Vanadium, and they made the same offer, that they would buy it from us at a dollar a pound for the fused vanadic oxide. Mr. Brown, however, removed the fusing plant from the mill, so we started out—we were making only the red cake, and United States Vanadium offered to buy that, I believe, at 90c a pound, the red cake.

Q. (By Mr. Alioto): Did you make a deal to sell that to United States Vanadium?

A. We did.

Q. What happened? [669]

A. We got into production of the red cake along about the latter part of May, and we operated during the first part of June, and Mr. Brown con-

(Testimony of Frank Nisley.)

tacted United States Vanadium and told them that we had——

Mr. Archer: I object to what Mr. Brown told him.

The Court: Who is Mr. Brown?

A. Mr. Brown, your Honor, was the President of Gateway Alloys Company.

The Court: Not one of the defendants or in any way connected with any of the defendants?

A. No, sir.

The Court: The objection will be sustained.

Q. (By Mr. Alioto): Was he working for U.S.V. at this time, Mr. Nisley?

A. He wasn't at this time.

Q. Now, without telling us or getting into any conversation that Brown may have had with U.S.V., did you in fact agree to sell your red cake material to U.S.V.?

A. As a result of Mr. Brown's trip, an engineer from U.S.V. came to our plant.

Q. What did he do?

A. He sampled the material and weighed out everything that we had made up to that time.

Q. Do you remember his name?

A. Sandy Sterns. [670]

Q. He was employed by U.S.V.?

A. He was employed by U.S.V.

Q. And what happened when he sampled that material?

A. A few days later we got a report from the United States Vanadium telling us the material

(Testimony of Frank Nisley.)

was satisfactory and we could deliver it at any time.

Q. Did you deliver it? A. We did.

Q. What happened?

A. The day I delivered it, they were unable to weigh it and sample it, and they asked that we leave it and come back in a couple of days.

Q. Did you come back in a couple of days?

A. I did.

Q. And what happened?

A. They had already fused it out; the material was gone. A few days later we got their report of the weights and assays, and these were very much shorter than the weights and assays that had been given us by our own chemist at Gateway.

Q. What happened then?

A. Well, we objected to the settlement but there wasn't anything done about it.

Q. As the result of that experience did you come to any conclusion about marketing?

A. Yes. We decided to close the plant down and to hunt [671] another source, another outlet.

Q. Did you find another outlet?

A. Yes, we did.

Q. Who was that outlet; what was that outlet that you found?

A. We contacted Continental Ore Company and they agreed to take the product then at a price, I believe, of $1.03½ a pound.

Q. They agreed to take the total output?

A. That's right.

(Testimony of Frank Nisley.)

Q. Then what did you do?

A. We installed a fusing plant then so that we could ship the material and they would buy it.

Q. About when did you complete the fusing plant?

A. The latter part of September of that year; we got into operation again about the 1st of October.

Q. Now, the fusing plant was a plant that converted the red cake into fused oxide, is that it?

A. That's right.

Q. As of that time, in September of 1941, had the United States Vanadium Corporation completed its mining on the Gateway properties under that lease? A. It had.

Q. Did you have a chance to observe that mine after they got through with it?

A. Well, the properties were stripped of all the available [672] ore that was easily accessible.

Q. Did you see that? A. I did.

Q. Did you walk on the property and look at it at that time? A. I did.

Q. Is that what you observed?

A. That's right.

Q. Then did you start producing for the plaintiff company, the Continental Ore Company?

A. We did.

Q. About when? A. In October of '41.

Q. Now, at this juncture, do you have with you, Mr. Nisley, the amount that you produced privately up until the time that you made the Gov-

(Testimony of Frank Nisley.)

ernment contract that we will come to in a moment?

A. Yes, I do.

Q. Would you be good enough to read into the record what your production of vanadium oxide was for that period?

A. During that period, we produced for the account of Apex Smelting Company-Continental Ore Company 33,115 pounds of vanadic oxide. That is the net V_2O_5. And we produced for the account of Vanadium Corporation of America 10,618 pounds of fused vanadic oxide.

Q. Your total production was approximately 43,000 pounds? [673]

A. Plus the amount that we shipped to the United States Vanadium Corporation—I can't recall exactly what that was—in the neighborhood of 5,000 pounds.

Q. Now the amount that you shipped to U.S.V. was in the form of red cake? A. Red cake.

Q. Is that it? A. That's right.

Q. And the amount that you shipped to Continental Ore Company and 10,000 to the Vanadium Corporation of America was in the form of oxide?

A. That's right.

The Court: What is the form of oxide?

A. It is the red cake melted, your Honor. It consists merely of melting the cake into what we call fused vanadic oxide.

Q. (By Mr. Alioto): I show you a bottle of material. Would you be good enough to state wheth-

(Testimony of Frank Nisley.)

er that is the fused vanadic oxide of the type that you produced? A. It is.

(Counsel referring to Plaintiff's Exhibit 31 for identification.)

Q. When you started to operate at Gateway, in the fashion in which you have described, what was your source for getting the ore?

A. The Gateway Alloys mines, as I previously testified, had [674] been pretty well stripped, and it was taking quite a little time to get those mines back into operation, and we were also buying from independent mines in the area. We—as I previously stated—we got started in October, and the winter months there are quite rough to move ore over the roads, and we had a rather intermittent operation from October until March 20th, the following year, at which time we were forced to close down entirely for a period of two months, until the roads opened up again.

Q. From whom were you buying; what is the nature of the companies or the miners from which you were buying that ore in that period?

A. We were dealing with approximately 20 or 30 independent miners, as well as with Gateway Alloys. They were trying to get their mines back into operation.

Q. Were these miners who had been in the area a long time or had they started up recently?

A. No. The only market they had for their ore prior to that time was for high-grade and we, of

(Testimony of Frank Nisley.)

course, opened up a market to them for the mill-type ore.

Q. About how many of those miners were you buying from?

A. I would judge between 20 and 30, small miners.

Q. When you say you closed the mill down in March of 1942, did you reopen it shortly thereafter?

A. Yes. We opened it about the 20th of May, the same year. [675]

Q. And did you continue to buy from the independent miners at that point?

A. We did, until along in June. I was weighing a load of ore one day—our scalehouse was very close to the main highway that led from Gateway to Uravan—and I was weighing a load of ore there and Mr. Burwell stopped and called——

Q. Who stopped?

A. Mr. Burwell of the United States Vanadium.

Q. Did you know who he was at that time?

A. Yes, I did.

Q. What happened?

A. He called this independent miner over from the scales to the road and talked with him for a little while. And when he came back, he told me that Mr. Burwell——

Mr. Archer: I object to what the miner told him.

Q. (By Mr. Alioto): Regardless of what the miner told you—don't tell us that because that is

(Testimony of Frank Nisley.)

hearsay—he went over and talked to Mr. Burwell.

Now, he had his ore, you say, on your scales?

A. That's right.

Q. And he came back, and what did he do? Tell us what he did. Don't tell us what he said. Tell us what he did.

A. He told me that he had been over——

The Court: Don't——

Mr. Alioto: Don't tell us what he told you; just tell us what he did. Did he leave the ore there with you and sell it to you?

A. He did that load.

Q. And then what happened after that?

A. He told me that if we couldn't——

Mr. Archer: I object to what he told him, if your Honor please.

Q. (By Mr. Alioto): Regardless of what he told you, did you thereafter buy from that miner?

A. No, that miner left us.

Q. Where did he sell thereafter?

A. To the United States Vanadium.

Q. Now, approximately where was he located on that map?

A. At that time, he was mining in the John Brown area.

Q. And how close was he to your mill?

A. About 12 miles.

Q. And how far was he from the Uravan mill?

A. Around 40 miles.

Q. Were there other miners who did the same thing at or about that time, in June, 1942?

(Testimony of Frank Nisley.)

A. Yes. We began to lose a number of our small miners.

Q. Lose them to whom?

A. To U. S. Vanadium.

Q. Now, at that time, do you know whether or not the United States Vanadium Company was acting as an agent for Metals Reserve? [677]

A. I found out later that they were.

Q. Do you recall approximately how many miners were taken away from you in that fashion?

The Court: Now, was this during the war period?

Mr. Alioto: This was during the period of time when United States Vanadium was acting for Metals Reserve, if your Honor please, in June of 1942, which is the date that the witness has fixed.

Q. Approximately how many miners then stopped delivering to your mill at Gateway and started delivering down to Uravan at the United States Vanadium mill?

A. Well, all that had been delivering to us except the Gateway Alloy Company.

Q. In other words, you lost every one of them?

A. We lost every one of them.

Q. Now, then, as a result of having lost—now, we don't want any conversation with any third parties, Mr. Nisley. There would be a temptation to go into them here in the natural course, but there is a rule against that.

As a result of having lost all those miners, what happened to your production in the mill?

(Testimony of Frank Nisley.)

A. We were cut back to only being supplied by the Gateway Alloy Company. As I previously stated, their mines had been stripped and they were not producing very heavily.

Q. So what happened? [678]

A. We had an intermittent operation. We had to just mill ores that came in. Later we were forced to close down entirely.

Q. About when did you close down entirely, approximately?

A. Well, the final shutdown, I think it was about October.

Q. Of '42? A. '42.

Q. Now on or about October of '42 did you have a meeting with Mr. Blair Burwell?

A. We did.

Q. Did you understand at the time that in addition to running the United States Vanadium Company he was supposed to be the agent for Metals Reserve?

A. During this time, we had gotten in touch with the War Production Board and the Metals Reserve Company in Washington and found—they referred us back to Mr. Burwell.

Q. Did you get any help from the Continental Ore Company in connection with this matter?

A. Yes. We notified them that our output would be cut considerably and asked their help in trying to help us obtain some relief.

Q. Did they do something for you?

A. They did.

(Testimony of Frank Nisley.)

Q. What did they do?

A. They made contact also with the War Production Board, with Metals Reserve Company.

Q. Now, as a result of this, did you have a meeting with Mr. Blair Burwell?

A. We did.

Q. Do you recall where that meeting was held?

A. In Grand Junction.

Q. Do you recall who was present?

A. Myself, my partner, Mr. Wilson—I believe John Hill and Mr. Burwell.

Q. Now, John Hill was another employee of the United States Vanadium Company, wasn't he?

A. He was.

Q. You knew at this time, of course, that they were supposed to be agents for Metals Reserve as well as running the United States Vanadium Company, didn't you? A. We did.

Q. Now tell us, as best you remember, the substance of the conversation that took place in that office.

Mr. Holland: This is not being offered against the Vanadium Company?

Mr. Alioto: No, it is not. Not at the moment.

A. We had found out during this time, by letters to the War Production Board and answers from them, that the United States Vanadium was offering a subsidy of 10c a pound to miners.

The Court: I didn't get your answer.

A. We had found during the course of our investigation [680] with the War Production Board

(Testimony of Frank Nisley.)

and Metals Reserve Company in Washington that the United States Vanadium Corporation was paying a subsidy of 10c a pound to the miners for the ore.

Q. (By Mr. Alioto): The miners in your area?

A. The miners in our area.

Q. Yes.

A. And we were trying to negotiate the same sort of an agreement whereby we would be allowed to pay the subsidy through the Metals Reserve Company to the miners.

Q. You negotiated this agreement with Mr. Burwell?

A. We were trying to negotiate this agreement with Mr. Burwell.

Q. What did Mr. Burwell say to you about that?

A. Mr. Burwell told us that the only kind of an agreement that he would recommend was one whereby we would be furnished the ore by Metals Reserve and turn the material back to the United States Vanadium.

Q. Turn your vanadium oxide over to United States Vanadium? A. That's right.

Q. Did you say anything in this conference about the Continental Ore Company or your desires in the matter?

A. We did. We told them that we would rather continue operating as an independent than to go under this type of arrangement.

Q. What did he say to that? [681]

(Testimony of Frank Nisley.)

A. He said he wouldn't recommend anything but this sort of an arrangement.

Q. Did he specify what that arrangement would contemplate, did he call it a toll arrangement or toll agreement?

A. Yes. He told us that if we would get in touch with Mr. DeWitt Smith of Metals Reserve Company in Washington and offer to mill this ore on a toll agreement whereby they pay so much a pound for milling it, he would recommend and follow it through.

Q. Tell us of the toll agreement so that we will understand it.

A. Well, the agreement he suggested was that the ore be stockpiled at our plant, be purchased by the Metals Reserve Company for the account of Metals Reserve Company through the United States Vanadium Corporation; that they would deliver the ore to our plant; it would remain in their possession, remain their property during the time it was being processed through our plant, and that the product would be returned to them.

Q. What product, the vanadium oxide?

A. The vanadium oxide.

Q. Returned where? Specifically, where was it physically going to be returned?

A. To the United States Vanadium Corporation.

Q. This was in October of 1942?

A. October the 2nd, as I recall, 1942. [682]

(Testimony of Frank Nisley.)

Q. Did you and your partners then agree to make a toll arrangement?

A. There wasn't anything else to do. We finally agreed to do this.

The Court: You were being paid, then, so much for milling it?

A. We were paid so much a pound for milling it, your Honor.

The Court: All right.

Q. (By Mr. Alioto): Now, then, the conference took place in October. About when was it that you finally got your toll agreement?

A. The signed toll agreement was finally delivered to us about February the 3rd or 4th, the following year. [683]

Mr. Alioto: Will you please mark this for identification?

(The document referred to was thereupon marked Plaintiff's Exhibit 74 for identification.)

Q. (By Mr. Alioto): Mr. Nisley, I show you a document which has been marked Plaintiff's Exhibit 74 for identification. Will you be good enough to examine the document and state whether that is the toll agreement that was signed as you indicated? A. It is.

Q. During that period from October of 1942 when you were negotiating this with Mr. Blair Burwell and Mr. John Hill, did the plant operate from October to January? A. No, sir.

Q. It closed down entirely?

(Testimony of Frank Nisley.)

A. It closed down entirely.

Q. After you received this agreement, you began operation under the toll agreement?

A. We began operation about the latter part of March, the first of April.

Q. Do you have with you the figures of your production under that government toll agreement?

A. Yes, I do.

Q. Will you be good enough to read them into the record, please, Mr. Nisley? [684]

A. During this period in black oxide we delivered to United States Vanadium Corporation about 88,729 pounds of fused vanadic oxide. In addition to that, of course, there was clean-up material and other materials.

Q. Prior to receiving the toll agreement, which is 74 for identification, Mr. Nisley, had there been any other recommendation by any government personnel, somebody employed directly by the government, about what should be done with that mill?

A. Yes, when we first contacted—we first made contact with Oscar Chapman, the Secretary of the Interior, and he told us——

Mr. Archer: I object to that.

Q. (By Mr. Alioto): Regardless of what he told you, did somebody come out from the government to investigate the matter?

A. Mr. Whittaker.

Q. Orville Whittaker?

A. Orville Whittaker.

(Testimony of Frank Nisley.)

Q. Will you be good enough to identify Mr. Whittaker for the record as to just what he was?

A. Mr. Whittaker had been employed by the Metal Reserves Company as an umpire in these matters.

The Court: Just a moment. We will take a recess.

(Recess.)

Q. (By Mr. Alioto): Mr. Nisley, there are a few things I want to clarify before we take up your testimony at the point where we left it. First of all, you testified that in order to convert the red cake into the black or the fused oxide, you installed some fusion equipment. A. We did.

Q. What was the price of that fusion equipment to do that job?

A. Approximately a thousand dollars.

Q. Approximately a thousand dollars and that did the job? A. That did the job.

The Court: How much?

The Witness: $1,000.

Q. (By Mr. Alioto): Mr. Nisley, you testified about certain miners who stopped delivering to you in about June of 1942. For how long a period of time had you been buying from those miners? For how long had they been your customers?

A. We began to buy from them in April of 1941 and we continued until about June, 1942.

The Court: When they ceased supplying you, they sold theirs to an agency of the government, was that it?

(Testimony of Frank Nisley.)

The Witness: Yes, in 1942.

Q. (By Mr. Alioto): In other words, they sold it to Metals Reserve Company through the United States Vanadium? A. That is right. [686]

Q. Which was the agent for the Metals Reserve?

A. That is right.

Q. You continued under the government program for approximately how long a period of time?

A. Until December 31, 1942.

Q. During the time that you were operating under the government program, did you have occasion to talk to Mr. Burwell? A. I did.

Q. Did you have occasion to tell him where you wanted your material sent, even after it was sent down to Uravan?

A. It was being delivered to Grand Junction.

Q. Grand Junction?

A. At the time we entered into the toll agreement, we asked that our product be sent to Continental Ore. We wanted to continue that relationship so we would have a post-war outlet for our material.

Q. Did you tell Mr. Burwell that?

A. We did.

Q. Do you know whether or not during the period of your production the Continental Ore Company received all the black oxide that was processed in your plant? Do you know anything about that? A. No, I do not.

Q. Approximately when was it that you received notification from anybody connected with

(Testimony of Frank Nisley.)

the United States Vanadium Company [687] that your contract would be terminated?

A. In November, 1943, we received a letter from John Hill stating that this was not firm yet but he felt that our contract would not be renewed after December 31st of that year.

Q. When were you officially notified that your contract would not be renewed?

A. A few days later we received a letter stating it would not be renewed, and that was prior to December 1, 1943.

Q. Prior to December 1, 1943?

A. That is right.

Q. Why did the government contract terminate?

A. The government—or the Metals Reserve quit supplying ore to us on December 31, 1943, and we went ahead and milled whatever was on hand and cleaned the plant up early in 1944 and closed it down.

Q. At the time Metals Reserve terminated your contract, did they also terminate the contract they had with V.C.A., the Vanadium Corporation of America?

A. No, they did not. We protested that we were shut down first. They shut us down before any of the other plants were shut down.

Q. Did you protest to Mr. Burwell?

A. We protested to the Metals Reserve in Washington.

Q. Did you ever talk to Mr. Burwell and Mr. Hill about that?

(Testimony of Frank Nisley.)

A. Yes, we told them we objected to it. [688]

Q. Did you know at that time who made the recommendation to Metals Reserve about closing down your plant? A. No.

Q. In any event, the plant closed down shortly after January 1, 1944, did it? A. Yes.

Q. At that time did you take up any contact with the Continental Ore Company?

A. We did.

Q. Did you come to some understanding with them as to what they would do?

A. They told us they would buy all the material that we could produce.

Q. All the material that you produced?

A. That is right.

Q. Did you go back into business privately after January 1, 1944?

A. No, we did not.

Q. Why not?

The Court: Just a moment. What is your question again?

Mr. Alioto: Did he go back into business on a private basis after the termination of the contract with the government and the witness answered "no".

Q. Why not, Mr. Nisley? [689]

A. We seriously considered it, and if the United States Vanadium had not stripped the mines of Gateway Alloys, there would have been no problem. We would have had plenty of ore supplied to

(Testimony of Frank Nisley.)

do it, but the mines were still under contract to Metal Reserves Company.

The Court: I can't hear you. You will have to speak up.

The Witness: I say, the mines were still under contract to Metal Reserves Company. In view of the things we had been up against, we felt we could not buck anymore and we closed down.

Q. (By Mr. Alioto): After you closed the plant down, what did you do?

A. I went into the service.

Q. And you remained how long?

A. Until February of 1945 or 1946.

Q. Do you still own that plant today? Incidentally, what business are you in in Grand Junction?

A. I am a real estate broker in Grand Junction.

Q. Is it part of your work as a real estate broker to cover the area in the Colorado Plateau?

A. It is. I am licensed under the laws of California and also bonded and licensed in Utah and Wyoming.

Q. Prior to the time that you made this government contract under which you started operation in the beginning of 1943, I [690] believe you testified you sold all of your oxide, all of your production to the Continental Ore Company except for 10,000 pounds. A. That is right.

Q. And that 10,000 pounds you sold to V.C.A.?

A. That is right.

(Testimony of Frank Nisley.)

Q. Do you recall the circumstances under which you sold that 10,000 pounds to V.C.A.?

The Court: Hasn't he just stated that?

Mr. Alioto: No, I am asking if he recalls the circumstances under which he sold the 10,000 pounds to V.C.A., if your Honor please. I won't repeat anything.

A. We had been shipping to Apex Smelting Company, and I believe they had a fire in their plant and were unable to take the product at that time, and so we sold it to the Vanadium Corporation, who met the price that we had been paid by the Apex people.

Q. The Apex Company was producing ferro-vanadium from your oxide for the Continental Ore Company, was it not?

A. That is my understanding, yes.

Q. Who was it who told you to ship your oxide to the Apex Smelting Company throughout this period?

A. We had made that arrangement ourselves.

Q. You had made that arrangement with whom?

A. With Continental Ore Company. [691]

Q. With Continental Ore Company to ship to Apex? A. That is right.

Q. Approximately when was it that you sold this 10,000 pounds to the Vanadium Corporation of America?

A. I believe it was in February of 1942.

Q. In February of 1942? A. Yes.

(Testimony of Frank Nisley.)

Q. Did the Vanadium Corporation of America at that time agree to take any more of your oxide?

A. They said they would take all we could produce at $1.10 a pound.

Q. Do you know whether or not the Vanadium Corporation of America was in touch with Apex Company during that period of time?

A. I don't know.

Mr. Alioto: We will offer at this time, if your Honor please, in connection with the continuity of this testimony about the sale of the 10,000 pounds a series of inter-office memoranda relating to the subject matter from the vice-president of the Vanadium Corporation of America to its president, to its mining engineer, Mr. Gustav Laub, the sales manager, to Mr. E. D. Bransome, of Vanadium Corporation of America; an inter-office memorandum from Mr. Gus Christiansen to Mr. Laub of Vanadium Corporation of America relating to Nisley & Wilson's supplies to the Apex Smelting Company. [692]

Mr. Holland: Your Honor, we object on the same grounds we did when Mr. Burwell was on the stand. This is offered out of order. The witness has stated he does not know anything about the relations between V.C.A. and Apex, and this is a matter between V.C.A. and Apex and should properly come up in Mr. Leir's testimony.

Mr. Alioto: This relates to the issue that the witness is talking about, if your Honor please.

Mr. Holland: I do not think it does.

(Testimony of Frank Nisley.)

The Court: Do you know anything about the matter contained in these memoranda?

The Witness: Nothing, your Honor, except we did sell product to the Vanadium Corporation of America at this time.

Mr. Alioto: I want to show, if your Honor please, the reason why the Vanadium Corporation bought this product at the same time. We are talking about the same supply. The letters mention Mr. Nisley.

The Court: I know, but you will have to properly identifiy this correspondence.

Mr. Alioto: There is no problem of identification. That has been done in pre-trial. It is directly related.

The Court: Very well, let it be admitted.

Mr. Archer: I object——

Mr. Alioto: It is not being offered against you, Mr. Archer, at the moment.

(The document referred to was received in evidence as Plaintiff's Exhibit 62.)

[See Book of Exhibits.]

Mr. Alioto: First is an inter-office memorandum from Mr. Edward S. Christiansen, the vice-president of the ~~Vanadium Corporation of America,~~ to Gustav Laub called Special Report. Mr. Laub is the vice-president also.

Under date of February 20, 1942——

Q. When was it you say you sold this 10,000 pounds to Vanadium Corporation?

A. It was February 21, 1942.

(Testimony of Frank Nisley.)

Mr. Alioto: On February 20, 1942, Mr. Laub wrote as follows:

"Mr. Christiansen, Vice-President of the above company, whom I have known slightly for some time, called on me stating that they have decided to go out of the Vanadium business and that they had certain equipment and some small stock of Oxide on hand that they would like to dispose of if we were interested.

"He did not have an actual list of the equipment nor of the raw materials they have on hand but from the figures he had, it looked as though they have close to 50,000 pounds of Vanadium Pentoxide containing between 78/87% V_2O_5 and about 40,000 to 50,000 pounds of Magnesite. [694]

"I told him that we might be interested in the Vanadium Oxide and possibly the Magnesite and some of the equipment which included jaw crushers and miscellaneous equipment. He promised to obtain from their Chicago office an actual complete list of the equipment they have to offer as well as the quantities and grades of Vanadium Oxide and Magnesite and to deliver these to me the early part of next week. I told him that I would then refer this to the proper parties of our company and that we would probably be interested in the Vanadium Oxide and the Magnesite if their prices were right. He stated that they would be reasonable in their prices and did not expect to make a profit.

"Mr. Christiansen further stated that they had been contemplating going out of the Vanadium

(Testimony of Frank Nisley.)

business for some time and their definite decision was reached for two reasons. First, that they had a fire in this department of their plant and secondly, that the sales contract which they had with Mr. Leir, President of the Continental Ore Corporation, had not worked out very well. Mr. Leir was getting a fifty percent cut on the profits. Mr. Christiansen also stated that they had some agreements with the Shattuck Chemical Company and Nisley & Smith for deliveries of Vanadium Oxide and that he would also look into this and advise us of the status thereof."

That is G. L. Laub—"GL:ESW".

Then a further report dated March 14, 1942, from the same Mr. Gustav Laub to Mr. E. D. Bransome:

"Subject: Apex Smelting Company, Chicago, Illinois," and up at the top is the pencilled handwriting "Continental Ore Corp."

Mr. Laub writes to Mr. Bransome, the president, as follows:

"Inasmuch as the following information has been conveyed verbally, this memorandum therefore is for our records.

"With reference to the writer's memorandum of February 20th advising that Mr. Christiansen, Vice-President of the above company, had informed us that they were going out of the Vanadium business and had offered us their stocks of Vanadium raw materials, equipment, etc., as I had not heard further from Mr. Christiansen in this regard I had

(Testimony of Frank Nisley.)

Larry Johnson casually contact him by phone and tell him that I had not received the information that he promised to send.

"As a result, Mr. Christiansen phoned the writer and stated that in going into the matter further they had run into some legal difficulties. Mr. Leir, President of the Continental Ore Corporation, with whom Apex has an agreement to furnish their entire production [696] of Vanadium, he acting as sales agent, objected strenuously to their breaching their contract and upon referring the matter to their counsel, Apex were advised that Mr. Leir had a strong case against them and to make the most satisfactory arrangement with Mr. Leir that they could.

"This resulted, Mr. Christiansen advised, in Mr. Leir putting a proposition up to them in that they would produce Vanadium at full capacity for a period of three months after which time he would take over their equipment and raw materials contracts and produce the material himself.

"Mr. Christiansen therefore advised that they felt they would be obligated to produce at maximum capacity for a period of three months and had decided to proceed on this basis but that they had not come to a definite conclusion about turning over the equipment and raw materials contracts after that time. The contract with Mr. Leir, he said, extended over the balance of the calendar year.

"In the event that the second part of Mr. Leir's proposition does not go through, Mr. Christiansen

(Testimony of Frank Nisley.)

stated that they still proposed to offer us such raw materials as they have available as well as plant equipment. [697]

"The above information, at your suggestion, was conveyed by phone to Mr. E. K. Jenckes, Assistant Chief, Vanadium Branch, War Production Board."

Then there is a memorandum entitled "Special Report," Gustav Laub, April 14, 1942:

"With reference to the writer's previous report of February 20th, Mr. Christiansen of the above company called again yesterday stating that they had now gotten their Vanadium situation straightened out and that they had definitely concluded to dismantle their Vanadium plant at once and go out of the Vanadium business permanently. The equipment from their plant is now for sale. He doubted whether there would be much of the equipment that might interest us but said that the list of same would be sent to us promptly.

"Mr. Christiansen stated that they had finally been able to come to an agreement with Mr. Leir of the Continental Ore Corporation, with whom they had a 14 year contract, to cancel the same. By doing so it was necessary for them, he said, to produce only enough Ferro Vanadium to complete two open orders which Mr. Leir had on his books and to continue producing Vanex (a mixture of Oxide and Aluminum which they have been supplying) up through June, after which time they would be completely out of the Vanadium picture. Mr. Christiansen further stated that their contract

(Testimony of Frank Nisley.)

and dealings with Mr. Leir had not proven at all satisfactory to them and that they regretted ever having gone into the business.

"He further stated that he would furnish us with the names of all of their suppliers of Ores and Oxide; the principal ones apparently being Shattuck Chemical Company, and Nisley & Wilson. He appeared to be most anxious that we obtain these raw materials rather than the possibility of Mr. Leir's getting them and continuing in the Vanadium business.

"We had an interesting discussion concerning low copper grained aluminum which they produce and release with necessary priority approval and I therefore turned him over to our Purchasing Department with regard to this item." [699]

One other interoffice memorandum from Mr. Sterling to Mr. Kett, dated April 22, 1942, in which, among other subject matters, he says:

"Apex Smelting Company—It is nice to know that we won't have to worry about them after July 1st."

Q. Mr. Nisley, just final questions now.

On the assumption that the Gateway Mines had not been stripped by U. S. V., as you and Mr. Burwell have testified to, on that assumption, how much vanadium oxide could you have produced from June of 1941 on through to 1949?

A. Well, the mill, as I previously testified, was only—it was limited largely by the amount of roasting equipment — which we could easily have in-

(Testimony of Frank Nisley.)

creased, and I see no reason why it couldn't have been a plant capable of producing 800-1,000 pounds of vanadium oxide a day during that period.

Q. And during all of the time that you were in business, was your arrangement with Mr. Leir that he would take your total output?

A. It was.

Q. Were you satisfied with your relations with Mr. Leir? A. Very.

Mr. Alioto: We have no other questions.

Mr. Archer: Did you put that toll agreement in evidence? [700]

Mr. Alioto: No, Mr. Archer, but I have no objection to putting it in.

Mr. Archer: Would you mind?

Mr. Alioto: We had it marked for identification.

Mr. Archer: I believe that's right. Exhibit 74.

Mr. Alioto: 74.

We will offer it into evidence, if your Honor please.

The Court: Admit it.

The Clerk: Plaintiffs' Exhibit 74, heretofore marked for identification, now is admitted and filed into evidence.

(Toll agreement was received in evidence and marked Plaintiffs' Exhibit No. 74.)

[See Book of Exhibits.]

Cross-Examination

Q. (By Mr. Archer): Mr. Nisley, I believe you stated in your testimony that at the time of the

(Testimony of Frank Nisley.)

meeting with Mr. Burwell, in October of 1942, it was your understanding that United States Vanadium was paying a ten-cent subsidy to miners, is that what you testified? A. It was.

Q. Now, by a ten-cent subsidy, do you mean that they were paying ten cents more per pound to the miners than you were paying?

A. It was our understanding through correspondence with [701] the War Production Board and Metals Reserve that they were buying this ore for the accounts of Metals Reserve and the Government was picking up the tab on ten cents a pound.

Q. Well, who was buying, Metals Reserve was buying?

A. United States Vanadium was buying as agents for Metals Reserve.

Q. Well, as agents for Metals Reserve, that is.

Now, how much were you paying for your ore per pound for two per cent ore, prior to June of 1942?

A. Approximately 21 cents a pound.

Q. And then in June of 1942 or thereabouts. United States Vanadium as agent for Metals Reserve came in and started paying 32 cents or 31 cents a pound for ore, did they not?

A. Yes. We didn't know, to begin with, that they were agents for Metals Reserve at the time it started.

Q. Well, that made you rather disturbed at the

(Testimony of Frank Nisley.)

beginning, when you didn't know that they were agents for Metals Reserve, didn't it?

A. It did.

Q. Did you feel any better about it when you found that they were agents for the Government?

A. It was still a problem.

Q. That is true.

The Court: Still what?

A. It was still a problem. [702]

Mr. Archer: Now, then, the contract, this toll agreement which has been put in evidence, was made with United States Vanadium as agents for Metals Reserve, wasn't it?

Mr. Alioto: The contract speaks for itself, Mr. Archer.

Mr. Archer: Well, there is no question about that, is there?

Mr. Alioto: I don't think there is.

Mr. Archer: Well, this is just foundation.

Q. If you want to take a look at it, Mr. Nisley.

A. It was.

Q. And the contract itself stated that you had to deliver the oxide to Metals Reserve, did it not?

A. I believe it stated we were to deliver the oxide to United States Vanadium Corporation as agents for Metals Reserve.

Q. At the Grand Junction warehouse for Metals Reserve? A. (No response.)

Q. That is where it went, didn't it?

A. Well, it was a United States Vanadium warehouse.

(Testimony of Frank Nisley.)

Q. Yes, as agents for Metals Reserve.

A. That part I don't know. I don't know what —it was the United States Vanadium warehouse.

Q. Did you know that the disposition of the vanadium oxide you produced was determined by the War Production Board?

A. Would you repeat that, please? [703]

Q. Did you know that the disposition, that is to say, who got the vanadium oxide that you produced under the toll agreement, was determined by the War Production Board?

A. Yes, we did. In fact, we wrote to Continental Ore, after Mr. Burwell made the suggestion that we enter into the toll agreement, and asked that they received this material through the War Production Board. Previous to that time our material had been allocated to them. They were obtaining allocations on all our material prior to the toll agreement.

Q. That's right. And so one of your objections to entering into the toll agreement was that your oxide would no longer—might no longer go to the plaintiffs in this action?

A. Our main concern was that we were losing an independent outlet.

Q. That's right.

A. By the separation of—I mean, by the arrangement of going under the toll agreement. We didn't want to enter into a toll agreement. We would much rather have stayed as an independent operator.

(Testimony of Frank Nisley.)

Q. Well, that is just what I am getting at. So, prior to the time you entered into the toll agreement, weren't you in touch with the War Production Board, and particularly the Regional Director in Denver, to find out whether or not, if you entered into the toll agreement, the War Production Board would allocate your oxide to the plaintiffs?

A. Yes, we were. At the time Mr. Whitaker made the investigation of the plant, I discussed the matter with him at the end of his visit, and it was our understanding that the recommendation was going to be made that we be allowed to continue receiving ore and that the Metals Reserve would pick up the tab on the difference between the price we were paying and what the Metals Reserve Company was paying. That was the basis upon which we were trying to negotiate the agreement with it.

Q. I am talking now about the allocation. Wasn't it also one of your objectives prior to entering into the toll agreement, to make sure that the War Production Board would allocate your allocation to the plaintiffs, to Continental Ore Company or to Apex Smelting Company?

A. That's right.

Q. And before you signed this toll agreement in February of 1943—dated as of the 26th day of January, 1943—weren't you assured by the War Production Board that your production would be allocated to the plaintiffs?

A. The first material that we produced was al-

(Testimony of Frank Nisley.)

located prior to the time we got into operation under the toll agreement.

Q. I am talking about—didn't you get an assurance from the War Production Board that when you started to operate under the toll agreement, your production would still be allocated to the plaintiffs? [705]

A. Yes, to start with I would say that was true.

Q. Under the——

A. They didn't assure us that—— Well, the first material was allocated to them, yes.

Q. Under the toll agreement?

A. Under the toll agreement, that's right.

Q. Do you know whether they ever took that material? A. No, I do not.

Q. Mr. Nisley, didn't you pack that first material in some steel containers which had been furnished you by the Continental Ore Company?

A. That's right, we did.

Q. And in 1944, after the toll agreement had been terminated, wasn't there discussion at that time between yourself and John Hill and Mr. Yetters at the Metals Reserve and the plaintiffs, as to who was going to pay for the steel containers in which this first batch of oxide had been placed and which were still in the Grand Junction warehouse?

A. There was some discussion concerning the drums. I can't relate just what it was.

Q. Well, then, if you put your first production into these steel drums under the toll agreement which commenced in the early part of 1942 and if

(Testimony of Frank Nisley.)

the steel drums were still in the warehouse in 1944, your production could hardly have been shipped to the plaintiffs, could it? [706]

A. That's right.

Q. Now, I believe you testified, Mr. Nisley, that you had been associated with the Rifle mill, the Loma mill, and the Mesa mill?

A. That's right.

Q. So that in 1941 you were one of the most experienced independent operators on the Plateau, probably next to Shattuck—North Continent and Shattuck, wouldn't you say?

A. We had considerable experience in the vanadium business.

Q. So in 1941, when you started your operations, you were making red cake, were you not?

A. We were.

Q. For Gateway Alloys?

A. (Witness nods head.)

Q. And you at that time, I believe you testified, approached United States Vanadium in order to get an outlet for this red cake, is that correct?

A. I didn't testify to that, no.

Q. You didn't—or Mr. Brown?

A. Mr. Brown made the contact, not myself.

Q. But at any event, as a result of this contact in 1941 with United States Vanadium, you had an unfortunate experience, didn't you?

A. We did.

Q. And that discouraged you from selling your

(Testimony of Frank Nisley.)

output to United States Vanadium, didn't it? [707]

A. It certainly did.

Q. And made you look elsewhere for an output?

A. That's correct.

Q. It certainly gave you no indication that United States Vanadium was trying to capture your output, did it?

A. Well, Mr. Archer, to answer that, I would have to go into a little background there. At the time they had the Gateway Alloys Mines under lease, they were stripping those mines, they were taking all the available ore from them. It was going to leave us in a position where we wouldn't have an ore supply, other than what we could pick up locally. If they could take our material the same as they did at the Mesa plant, and put us in a position where we couldn't operate, we were out of business, and by taking this material at a much lower—actually amounted to a lower price per pound, if you want to figure it that way—we weren't paid for the material that we took down there, according to our records.

Q. That's right.

A. So it put us in a position where we had to shut down for a period of time.

Q. You didn't have an outlet, did you?

A. We had to develop another outlet.

Q. You had to look for another outlet?

A. That's correct. [708]

Q. Now, you talk about stripping these mines.

(Testimony of Frank Nisley.)

Mr. Brown had leased these mines to United States Vanadium Corporation, hadn't he?

A. That's right.

Q. And he had shut down in the spring of 1940 at the time that the export control went in, had he not? A. He had.

Q. During all this period of time the Gateway claims, you are talking about, were actually opened by the Molybdenum Corporation of America, were they not?

A. It is my understanding that the Gateway Alloys had a purchase contract from the Molybdenum Corporation.

Q. That's right. And Mr. Brown and Mr. Bowman were required to make payments periodically under that contract? A. Yes.

Q. So that in 1940, when they shut down their operations, when the export controls went in, they had no means of making a payment under that contract, did they? A. That's right.

Q. And it was at that time that the United States Vanadium Corporation came in and mined the claims, for about a year, until the time you commenced operation?

A. It was more than a mining operation. They actually stripped the mines out. They took all the available ore that was in sight, and it wasn't run on a mining—what you would [709] call a mining operation.

Q. Well, did they violate the terms of the lease?

(Testimony of Frank Nisley.)

A. I don't know what the terms of the lease were.

Q. So you don't know whether or not they violated the terms?

A. We looked at the mines and we objected to Mr. Brown, told him that it looked to us like there wouldn't be any ore available at the time he got them back.

Q. Now, I believe you testified as to operations, how you could have operated your plant from 1941 to 1949, and of your knowledge of this general area.

At the time you ceased operations, in 1944, had there been any vanadium operations on Beaver Mesa?

A. It wasn't known as Beaver Mesa at that time. We had been buying ore from the Carnotite Mine, which was located close to the Beaver Mesa Plateau.

Q. Would you point out how close the Beaver Mesa is to the Gateway mill?

A. Well, the Beaver Mesa is just to the west of the Gateway mill. It lies pretty nearly on the Colorado-Utah line.

The Court: How far?

A. Approximately 12 or 14 miles from Gateway.

Q. (By Mr. Archer): Between 1944 and 1949, do you have any knowledge of how many thousands of tons of vanadium-bearing ore had been taken out of Beaver Mesa? [710]

A. Between '44 and '49, no.

(Testimony of Frank Nisley.)

Q. Do you know what independent operators were on Beaver Mesa?

A. I went into the service——

Q. In '44?

A. In '44. I was gone during that time.

Q. All right. You have testified heretofore as to what your operations would have been from 1941 to 1949. You got back from the service in 1945—what was it, January '45 or December '45?

A. No, I believe it was about February of '46 when I returned.

Q. February '46. I think that's right. And then you purchased this mill from Robert Hall?

A. At a later date, yes.

Q. What I am talking about, you testified as to what your operations would have been from this period '41 through '49. So after you returned from the service, were you familiar with these Beaver Mesa operations?

A. Yes, to a certain extent I was.

Q. Who were the operators up there, Mr. Nisley?

A. Well, it is my recollection at the time that Beaver Mesa wasn't developed yet, '47-'49.

Q. I believe that's correct. Was it developed prior to '49? [711]

A. No, I think it was after that.

Q. After '49? A. That's right.

Q. In regard to your testimony pertaining to the Loma mill which was operated by Mr. Morrison and Mr. Ackerman, you knew at the time that you

(Testimony of Frank Nisley.)

were working there, did you not, that Mr. Morrison owned two mines himself in Eastern Utah producing vanadium ore averaging 7 per cent, didn't you?

A. At the time I went to work for him, he was mining some ores of his own. However, that ore ran out in his own property.

Q. Well, he also—pardon me, did you finish?

A. Yes.

Q. He also owned about 60 claims in the same area, didn't he? A. Undeveloped claims.

Q. And he never did develop them, did he?

A. No, he didn't.

Q. Subsequently, do you recall a lawsuit between Mr. Ackerman and Mr. Morrison over the recovery in that mill?

A. I had heard of it, but I was not involved in it.

Q. Were you involved in any lawsuit in which the Loma mill was also involved?

A. No, I can't recall that I was.

Q. Do you recall a time when Mr. Leir, the plaintiff here, requested you to make a deposition, or to give a statement [712] in regard to the Loma mill, the operations there? A. Yes.

Q. Do you have a copy of the statement you made?

A. No. As I recall it, it related to the fact that Mr. Morrison had been late in one of his shipments of his fused material to Mr. Leir and caused some difficulty.

Q. At that time didn't you state that Mr. Morri-

(Testimony of Frank Nisley.)

son's difficulty—didn't you state that there were several conditions which hindered the production of the oxide and which could not be helped? One was the difficulty in obtaining the equipment which Mr. Morrison needed. Another was the difficulty in getting the equipment which he obtained and which was guaranteed to do the work—guaranteed to do the work to actually producing. Isn't that the statement that you made at that time?

A. I think that's correct.

Q. Didn' you also make the statement that "One must remember that the process used by Mr. Morrison was a new one and the equipment had to be fitted in to do the work, and even under the maker's guarantee, some of it had to be changed"?

A. That's correct. Mr. Morrison had installed a crushing plant that was new to the industry, and he was experiencing considerable trouble with that crushing plant.

It had nothing to do with the chemical recoveries or the process as far as roasting the ore was concerned. [713]

Q. Well, didn't you subsequently hear that the reason Mr. Ackerman, to whom Mr. Morrison sold the mill—that the reason Mr. Ackerman sued Mr. Morrison was because Mr. Morrison had represented recoveries to be about 70 per cent and Mr. Ackerman found out that the recovery was only about 45 per cent.

Mr. Alioto: I submit, if your Honor please, that

(Testimony of Frank Nisley.)

a lawsuit in which the witness didn't participate is not relevant cross-examination.

Mr. Archer: I am asking him if he heard.

Mr. Alioto: Even if he did hear, it wouldn't be material, as to what two other people were arguing about.

The Court: Overruled. It goes to his experience.

A. No. [714] In order to explain that a little further, as I previously stated, the chemical recoveries shown in the plant was in excess, I believe, of 70 percent. However, there were certain things that needed to be done there in order to maintain that recovery. For instance, under the leaching tank of Mr. Morrison had been installed concrete sumps, and this material, after it got into the sumps, was leaking out of the tanks and going into the ground, and he was having trouble, as I previously stated also, in crushing this ore. But they were all things that could very easily have been corrected, and in this report I gave to Mr. Morrison I brought these facts out. That is what prompted him to tell me that, that along with the situation that U. S. Vanadium had established in buying ore in direct competition to him in an area where it had not been established prior to that time, made it difficult for him to carry on. He was not financed to fight that sort of situation.

Q. Referring to the period when you commenced operating the Gateway Alloys in 1941, your first year of operation, I believe you testified you

(Testimony of Frank Nisley.)

established there favorable relations with a group of independent miners who supplied you with ore.

A. Yes.

Q. So in your first year of operation you had no difficulty in getting ore, is that correct?

A. That is not correct. In the spring, after we installed the equipment, as I previously said, the road [715] conditions in the area were bad. In fact, the roads washed out to both Uravan and to Grand Junction, and so we were isolated at Gateway for a time. Ore could not be moved in. We could not even move supplies to the mills. So it kept us from operating until about the last of May, the first of June, and then we had this experience with the United States Vanadium Corporation that shut us down from July to October in order to establish a new market and put in our fusing plant.

In October, again, when we got started, we were again in a winter cycle and road conditions from October on until February of the next year were pretty—we had a pretty intermittent operation. Some days the miners could deliver ore, some days they could not. So we didn't get as much ore as we could have milled during that period by quite a bit.

Q. What I am getting at is the first date, or the first time, without getting the particular dates, when you experienced difficulty in getting ore outside of due to weather conditions, but to due to the activities of U. S. V. was in June of 1942 when they com-

(Testimony of Frank Nisley.)

menced buying from Metals Reserve, is that correct?

A. No, we had operated prior to that. After the roads cleared up we had a period from about May 20th until the U.S.V. policy had finally taken our miners away from us, during which we did receive considerable ore. In fact, I think during that period we had a supply—during that period we purchased 100, [716] 200, 300—in the neighborhood of 330 tons of ore during that period before we were affected directly by the United States Vanadium ore-purchasing program.

I might say further during that time we had experienced a loss, of course, in the mills during the period we operated the prior year until—that was during the time the United States Vanadium, we made the sale to them—during the following year period the mill showed a profit in the operation, even with these intermittent operations during these winter months.

Q. What I am getting at is did you ship more oxide prior to the beginning of the Metals Reserve program, or did you ship more oxide after the beginning of the Metals Reserve program, discounting the toll agreement?

A. You mean to—the material that was produced under the Metals Reserve program?

Q. I was discounting what you produced under the toll agreement, just considering your own private operations. Did you ship more oxide prior

(Testimony of Frank Nisley.)

to the time that Metals Reserve starting buying, or after the time Metals Reserve started buying ore?

A. It will take a little time to determine that.

Q. Do you have your record there?

A. Yes.

Q. Your first shipment of fused black was on November 13, [717] 1941? A. That is correct.

Q. 6,543 pounds? A. That is right.

Q. Your second was on December 19, 1941, 5,074 pounds? A. That is right.

Q. And the next shipment was on May 23, 1942, of 2,857 pounds?

A. You are talking here of the material that we had shipped to Continental and Apex.

Q. The material that you shipped to Continental and Apex.

A. During this time, on February 1, 1942, we had shipped 12,000—10,618 pounds of V_2O_5 to the Vanadium Corporation of America.

Q. February 21st—that is 12,223 to V.C.A.?

A. That was all black, yes.

Q. Then in May, 1942, 2,857 pounds?

A. That is right.

Q. Then on June 20, 1942, 5,040 pounds?

A. That is right.

Q. June 25, 2,357 pounds?

A. That is right.

Q. July 31, 6,294 pounds?

A. That is right.

Q. August 13, 2,470 pounds? [718]

A. That is right.

(Testimony of Frank Nisley.)

Q. August 29th, 3,964 pounds?

A. That is right.

Q. September 21st, 6,040 pounds?

A. That is right.

Q. October 21st, 4,458 pounds?

A. That is right.

Q. December 1, 4,723 pounds. And then 735 pounds—where did that go? Is that in December?

A. I imagine it was.

Q. It is pretty clear that you continued shipping vanadium oxide to Continental or the Apex Smelting Company, then, after the Metals Reserve program came in, isn't that true?

A. Yes, we did.

The Court: We will recess at this time until two o'clock.

(Whereupon a recess was taken until 2:00 o'clock p.m.) [719]

Monday, June 9, 1958—2:00 P.M.

FRANK NISLEY

called as a witness by and on behalf of the plaintiffs; having been previously duly sworn, resumed the stand and testified further as follows:

Cross Examination—(Continued)

Q. (By Mr. Archer): Mr. Nisley, I have here letters in May and June of 1941 from Mr. Leir to you and you to Mr. Leir regarding your commencement of your production for him. I wonder if you

(Testimony of Frank Nisley.)

would identify those letters. I notice your letter, it's a little weak—if you would look at the second page there is a more legible copy (handing witness).

A. (Witness examining) Yes, sir.

Mr. Archer: As Defendant's Exhibit next in order I offer a letter from Mr. Leir to Frank Nisley, Jr., dated May 28, 1941, and Mr. Nisley's reply dated June 13, 1941, as one exhibit.

Mr. Alioto: No objection.

The Clerk: Defendant Union's Exhibit 2-J admitted and filed in evidence.

(Letter May 28, 1941, Leir to Nisley; Letter June 13, 1941, Nisley to Leir, received in evidence and marked Defendant Union's Exhibit No. 2-J.) [720]

Mr. Archer: Mr. Leir's letter to Frank Nisley, dated May 28, 1941, reads as follows:

"I have just returned from Chicago and found your kind letter of May 23, for which I think you.

"I saw the Apex people there and had an opportunity to discuss with them, in a general way, the question of the price of vanadic acid.

"We may be willing to give you a price of $1.00 per pound f.o.b. Grand Junction, provided you ship a good fused acid with at least 85 per cent V_2O_5.

"Apex is prepared to give you such a price in order to cooperate with you in the start of your new enterprise.

"Please let me have your reaction to the above, and don't be too secretive with us, because sooner

(Testimony of Frank Nisley.)

or later you will undoubtedly find us very valuable customers."

Q. Mr. Nisley, when it states in here "fused acid," that is the same as fused black oxide?

A. That's correct.

Mr. Archer: Mr. Nisley's reply, dated June 13, reads as follows:

"Dear Mr. Leir: I received your letter of the 28th of May and have noted contents carefully.

"I am going to approach the matter in a little [721] way from before. If we can steadily produce an average of 9,000 pounds of fused vanadic acid per month of a grade better than 85 per cent with low impurities, what price would you be in a position to offer? By this statement, I mean that we would be in a position to deliver that amount due to the fact that we have the ore available and are able to make more than that amount per day at the present time.

"We have been able to see your position where no steady flow of the material can be guaranteed over any period of time, but comes in very irregular, and of a lower quality due to the conditions of the ore for treatment, being from different locality. For that reason a lower price seems to have to prevail.

"If you can offer something substantial and it is better than we have at present, we might be interested. We are in a very excellent field for ore and are having very satisfactory results with our processing and milling.

(Testimony of Frank Nisley.)

"Let us know your reaction to the above and if you are interested in having a steady supply available, please let us hear from you. I believe we can show you results which have not been obtained elsewhere to our knowledge, and will do our best to cooperate with you in any way we can." [722]

Q. I show you now, Mr. Nisley, a letter to Apex Smelting Company, dated December 23, 1941, signed by you, and ask you whether you can identify that letter (handing witness).

A. (Witness examining) Yes.

Mr. Archer: Offer this as Defendant's Exhibit next in order.

Mr. Alioto: No objection.

The Clerk: Defendant U's Exhibit 2-K admitted and filed in evidence.

(Letter dated December 23, 1941, Nisley to Apex Smelting Company, received in evidence and marked Defendant Union's Exhibit 2-K.)

Mr. Archer: This is a letter dated December 23, 1941, from Mr. Nisley to Apex Smelting Company, attention Mr. Lippa.

"Dear Sir:

"A few days ago we received notice that vanadium has been put under a priority rating and that we will need, it seems, a priority rating from you in order to fulfill our needs. We wonder if you you would furnish us with such priority rating?

"We shipped to you on the 19th 26 sacks of fused acid and expect to ship again about the first week of January, if not sooner."

(Testimony of Frank Nisley.)

Q. I now show you a telegram, Mr. Nisley, to Apex Smelting [723] Company, from you, dated January 27, 1942, and ask you whether you can identify that (handing witness).

A. (Witness examining) Yes.

Mr. Archer: Offer this as Defendants' next in order.

Mr. Alioto: No objection.

The Court: Defendant Union's Exhibit 2-L admitted and filed in evidence.

(Telegram, January 27, 1942, Nisley and Wilson to Apex Smelting Company, received in evidence and marked Defendant Union's Exhibit 2-L.)

Mr. Archer: Telegram dated January 27, 1942, from Nisley and Wilson to Apex Smelting Company:

"Can you receive shipment? We have no further word concerning parties who can receive shipments and we desire to move cakes as quickly as possible."

Q. To what did this telegram refer, Mr. Nisley, if you can recall?

A. It referred to the allocation orders that were required by the government for us to sell our material.

Q. Were you able to get the allocation orders to the Apex Smelting Company?

A. Well, I don't recall whether we were able to get one at that time. Later all the shipments from then on we received those allocation orders. [724]

(Testimony of Frank Nisley.)

Q. Well, isn't it a fact that prior to the time you received the allocation order to the Apex Smelting Company you received an allocation to sell to Vanadium Corporation of America and that was the sale that you made to the Vanadium Corporation of America?

A. I don't recall whether we received an allocation prior to that. We contacted them about selling this material to them and they said they could take it, that they had the allocation order.

Q. They had the allocation order and Apex Smelting didn't, isn't that correct?

A. Well, they could obtain it. I don't think that they had it, but that they could obtain it.

Q. Well, they did obtain it before you sold them, didn't they? A. Yes.

Q. I believe, Mr. Nisley, in your direct examination you testified that at a meeting with Mr. Burwell and Mr. Hill in October of 1942 you were told that Metals Reserve could not buy ore and sell it to you or subsidize a payment to the miners for you and then let you process it and dispose of it as you desired; isn't that the substance of your conversation with Mr. Burwell?

A. Well, Mr. Burwell told us that he wouldn't approve of it. The arrangement that he would approve was one where [725] we would receive the ore from Metals Reserve and return the cake back to them after processing and be paid a toll for the processing.

Q. Who was Orville Whitaker?

(Testimony of Frank Nisley.)

A. He was an independent engineer. He was hired, my understanding was, by Metals Reserve Company to umpire these disputes between mills.

Q. And he was not an employee of the United States Vanadium Company, was he?

A. Not to my understanding.

Q. Well, did Mr. Whitaker tell you the same thing that Mr. Burwell told you?

A. Mr. Whitaker first told me that he would recommend that that be done. At the meeting that was held in Mr. Whitaker's office between Mr. Burwell and Mr. Whitaker, myself and Mr. Gardner, at that time we arrived at the other arrangement. But Mr. Burwell had already suggested that we send this letter to DeWitt Smith, that it was the only thing he would follow through on, and we had no choice but to do that.

Q. Well, didn't Mr. Whitaker, as well, as Mr. Burwell, tell you that Metals Reserve cannot sell ore to anyone and that Metals Reserve was only able to buy ore and pay the milling cost to get the finished product?

A. Mr. Whitaker didn't tell us that. In fact, he recommended to the contrary. But at that meeting we had already [726] sent the telegram to Mr. DeWitt Smith and the matter wasn't discussed. It was just assumed that that was the way we were going to proceed, and it is the way we did.

Q. I show you a telegram dated October 9, 1942, from yourself to Continental Ore Corporation, and

(Testimony of Frank Nisley.)

ask you whether you can identify it (handing witness).

A. (Witness examining) Yes.

Mr. Archer: I will offer this as Defendant's Exhibit next in order.

Mr. Alioto: No objection.

The Clerk: Defendant Union's Exhibit 2-M admitted and filed in evidence.

(Telegram October 9, 1942, Nisley and Wilson to Continental Ore received in evidence and marked Defendant Union's Exhibit 2-M.)

Mr. Archer: Telegram dated October 9, 1942 to the Continental Ores Corporation from Frank Nisley, Jr., and Wilson:

"In Conference Whitaker Burwell Denver This Afternoon Was Told By Both Metals Reserve Cannot Sell Ore to Anyone Are Only Able to Buy Ore Pay Milling Costs Get Finished Product In Return Suggest You Contact DeWitt Smith Find Out If Product Will Go to Your Plant We are Told Metals Reserve Washington and WPB Will Decide Where Vanadium Acid Goes Sending Full Information Airmail." [727]

The Court: Who signed the telegram?

Mr. Archer: Mr. Nisley, your Honor.

Q. I show you now a telegram from Nisley and Wilson to Continental Ores Corporation dated October 16, 1942, and ask you whether you can identify that (handing witness).

A. (Witness examining) Yes.

Mr. Alioto: No objection.

(Testimony of Frank Nisley.)

Mr. Archer: Offer this as Defendant's Exhibit next in order.

The Clerk: Defendant Union Exhibit 2-N admitted and filed in evidence.

(Telegram October 16, 1942, Nisley and Wilson to Continental Ores received in evidence and marked Defendant Union's Exhibit 2-N.)

Mr. Archer: This is dated October 16, 1942 from Nisley and Wilson to Continental Ores Corporation.

"In Reference Your Letter We Have Been Attempting to Get Our Material Allocated to You. Local Metals Reserve Officials State Entire Problem of Allocation Up to WPB and Metals Reserve, Washington. Our Operating Data Together With Mr. Whitaker's and Mr. Burwell's Recommendations Airmailed to Washington Tuesday October 13. We Will Wire Mr. Hatch and DeWitt Smith Tomorrow Asking Them to Allocate Our Material to You. We Will Do Everything We Can to Help. Letter Being Sent Airmail. We Will Ship About 5,000 Pounds End [728] This Week. Please Call On Us If We Can Help The Situation In Any Way."

Q. Who was Mr. Hatch, Mr. Nisley?

A. Franklin Hatch was with the War Production Board in Washington.

Q. And Mr. DeWitt Smith?

A. Was with Metals Reserve Company in Washington.

The Court: Was there any way now that you

(Testimony of Frank Nisley.)

could sell this product to the plaintiff Continental Ore without the approval of the Washington authorities?

A. No, your Honor. The material had to be allocated to them, but they had been receiving those regularly up to that time. Our material had been —we had been able to continue shipping to them.

Q. (By The Court): Well, if there was any change in the manner of shipping, was that because of orders of the Washington Authority?

A. The War Production Board, your Honor, had issued these allocation orders on these shipments, correct.

Q. And in this case did they issue an order?

A. I don't know. Our material—we had to deliver our materials to the United States Vanadium. Later on it was out of our hands. Prior to that time we had to have these allocation orders in our hands before we could ship to them, but after we made the toll agreement with United States Vanadium as agents for Metals Reserve, our material was delivered to their warehouse and they took care of the situation from there on.

Q. They paid you for the ore?

A. Yes, your Honor, they paid us a treatment charge for treating the ore.

Q. (By Mr. Archer): Mr. Nisley, I believe you stated in your direct testimony that the toll agreement was approved sometime in November. In other words, the Metals Reserve approved the principle of having a toll agreement but the final agree-

(Testimony of Frank Nisley.)

ment was not executed until the last of January or the first of February in 1943.

A. That is correct. They approved the substance of it in October or November. I remember that we had—had some provisions in the original toll agreement, and I think the [730] final toll agreement was signed or was stated by the United States Vanadium on January 26 and actually delivered to us about February 3rd or February 4th.

Q. What I was getting at is, actually a proposed form of toll agreement was sent to you directly from Washington around the end of November, 1942, and you and your attorney went over to see John Hill at the Metals Reserve office and you sat down, all three of you together, went over it and made the changes in it, didn't you?

A. That is correct.

Q. And then it had to go back through the mill again, through the lawyers and back to Washington. Then it came out again, and after you received it, even in the early part of January, you had to make another revision to it right away regarding analysis, and there is a specific indemnity or exculpatory provision. Do you recall that amendment that was added afterwards? A. Yes.

Q. I believe you testified that although this was signed in the early part of February, 1943, you did not get into actual operations until the end of March or the first of April, 1943; is that correct?

A. That is correct.

(Testimony of Frank Nisley.)

Q. Prior to getting into operation, you more or less did some fixing up of your plant, did you not?

A. Well, there were several things. The Metals Reserve or U. S. Vanadium as agents for Metals Reserve, required that we completely clean up all the ore that we had in the plant, that we clean out our fusing furnace, which was quite a task. We had to remove brick, take the vanadium out of it and replace them with new brick. We had to clean out our tanks, process everything we had, and get rid of the material that was ours. So we had a clean plant to start with. It took quite a little time to do that, and also we did install some additional equipment.

Q. And you obtained a $5,000 loan from the Reconstruction Finance Corporation, did you not?

A. That is correct.

Q. And that loan was not made until after the toll agreement was approved, was it?

A. No, we had been dealing with them but they would not talk to us about final arrangements until after the toll agreement had been actually signed.

Q. After you had cleaned up the plant and put in this, or made these changes or additions in equipment, was your plant in better condition than it had been in the fall of 1942? A. Yes.

Q. I show you now two telegrams, one dated November 27, 1942, from yourself to Continental Ore, and a reply dated November 28th from Continental Ore to you, and ask you whether [732] you can identify those telegrams. A. Yes.

(Testimony of Frank Nisley.)

Mr. Archer: I offer those telegrams as one exhibit, as defendants' exhibit next in order.

Mr. Alioto: No objection.

(The telegrams referred to were thereupon received in evidence as Defendant U's Exhibit 2-O.)

Mr. Archer: The first is dated November 27, 1942, from Mr. Nisley to Continental Ore Company:

"Notice From Telegram Term 'Ground Acid' Material For Shipment Is Crushed As Small In Size As Past Shipment Ore Two. Please Wire Us Immediately If This Size Is Not Acceptable. Otherwise Material Will Be Shipped Tomrrow. Metals Reserve Wired Us Our Contract Passed Final Approval and Placed In Mail November 25. Local Metals Reserve to Commence Supply Ore Immediately Under Terms of Contract."

November 28, 1942, from Continental Ore Company to Nisley and Wilson Vanadium Mill:

"Fused Acid Crushed As Recent Shipments Satisfactory. Please Ship Promptly."

Q. Mr. Nisley, was the Continental Ore Company satisfied with your output, the material which you produced at the Nisley and Wilson mill?

A. Yes. There were some matters coming up at that time. [733] We made fused vanadic acid. As the final step it ran out of the fusing furnace as a liquid, and we caught it in gobs and we had to crush that material, and they were raising the question that the size that we were shipping, the size of the finished cake might be a little large, and we

(Testimony of Frank Nisley.)

had only a small crusher and we had shut it down so that it would crush as fine as we could. However, by doing that it cut the capacity of the crusher down. It was quite a task to make it. Some of the other plants at that time had put in what is called a flaking machine, which is merely a way of making this finished product in very fine flakes, and we had not installed such equipment yet because of the cost of it. However, later during our Metals Reserve operation we found a way to do this with a very cheap machine. We actually built one, put it in operation, and started delivering some kind of flake product to the Metals Reserve Company. It is more desirable than the crushed vanadium apparently.

The Court: What was your question?

Mr. Archer: I was just asking him whether this product was acceptable and I think the witness has answered it.

The Court: Very well.

Q. (By Mr. Archer): I now show you a copy of letter from Mr. Leir to Nisley & Wilson dated April 3, 1943, and ask you whether you can identify that.

A. Yes. This refers to the same matter that was under [734] discussion at the time.

Mr. Archer: I offer this letter dated April 3, 1943, from Mr. Leir to Nisley & Wilson as defendants' exhibit next in order.

Mr. Alioto: No objection.

(Testimony of Frank Nisley.)

(The letter referred to was thereupon received in evidence as Defendant U's Exhibit 2-P.)

Mr. Archer: Mr. Leir writes a letter to Mr. Nisley dated April 3, 1943, "Re: Vanadium Concentrates."

Q. By "Vanadium Concentrates" we are still referring to the fused black oxide, are we not?

A. That is correct.

Mr. Archer: (Reading.)

"You probably have received a copy of the allocation in our favor for 10,000 lbs of contained metallic vanadium (17,843 lbs. contained V_2O_5) in concentrates which was granted to us by the War Production Board out of your production.

"We presume that you will receive instructions from the Metals Reserve Company through the U. S. Vanadium Corp. to ship your entire production to us to the extent of 10,000 lbs. of V contained and we hope that you will be able to step up your production to reach this figure in the near future because this first [735] allocation will be duplicated regularly from now on.

"We have changed our production somewhat and now need the concentrates in the form of ground materials, maximum 10 mesh and minimum 80 mesh.

"That means that the material should not contain grains above 10 mesh and should not be finer than 80 mesh. It would, of course, be of great help to us if you could grind this material to conform

(Testimony of Frank Nisley.)

to these specifications. If you do not have any such grinding equipment at present, please look around and try to obtain this simple machinery at the earliest possible moment. In the meantime, grind the concentrates as finely as possible.

"Of course, for these shipments to us you will use the drums we sent you.

"We are glad that our combined efforts finally were successful in diverting your production to us which will certainly prove to be very important after the present emergency has passed."

Q. I now show you a letter dated May 25, 1943, from yourself to Continental Ore Company, an original, and ask you whether you can identify it.

A. Yes.

Mr. Archer: As defendants' exhibit next in order I offer a letter dated May 25, 1943, from Frank Nisley, Jr., [736] to Continental Ore Company.

Mr. Alioto: No objection.

(The document referred to was thereupon received in evidence as Defendant U's Exhibit 2-Q.)

Mr. Archer: This is from Frank Nisley, Jr., to Continental Ore Company, dated May 25, 1943:

"Dear Sir:

"We are writing you concerning fused acid which we have delivered to the Metals Reserve Company in Grand Junction. Mr. Hill of the M.R.C.——"

Q. "M.R.C." refers to Metals Reserve Company?

A. Metals Reserve Company, yes.

Mr. Archer: (Reading.) "Mr. Hill of the M.R.C.

(Testimony of Frank Nisley.)

told us that they were to furnish you with acid from our production and that we could start putting the fused product in your containers as far as he was concerned as per your instructions.

"We have delivered to the M.R.C. warehouse in Grand Junction to date 10,005.5 pounds of fused acid net. 7518.7 pounds of this amount, less samples, has been delivered to them in your drums. We are now fusing out the last 15 days red and have on hand only enough drums to about finish out this run."

Q. What does "red" refer to?

A. That refers to the red cake. Our fusing plant was [737] much larger than our capacity of output on red cake and we started up and ran out of mash and shut it down.

Q. Mr. Nisley, to get back to the toll agreement, the agreement which is in evidence is dated as of the 26th day of January, 1943. The term of it reads:

"This agreement shall commence on the day when sufficient ore to commence milling operations shall be delivered by the agent to lessees——"

The lessees referred to you?

A. Yes, sir.

Q. "——and shall continue for a period of 90 days from that day or until this agreement is cancelled, but in no event beyond July 28, 1943, unless a subsequent agreement is entered into between the parties."

Was a subsequent agreement entered into?

A. Yes, it was.

(Testimony of Frank Nisley.)

Q. On what date did that terminate?

A. I don't recall. As I remember it, it ran until we were notified 30 days in advance of cancellation. I don't remember a set date on it.

Q. You do not remember whether it was subject to cancellation or whether it terminated on the first day of January, 1944?

A. I am not positive. It could have terminated on January 1st.

Q. Before going to that, in order to have your agreement [738] extended, do you recall that you had to make a report as to certain of your costs of operation up to date to the Metals Reserve after you had operated a few months?

A. Yes, we had to make reports to the Metals Reserve monthly.

Q. Do you recall Paige Edwards? A. I do.

Q. What was Paige Edwards doing at that time?

A. Paige Edwards was working under, I believe, the direct supervision of Orville Whitaker for Metals Reserve.

Q. I now hand you a letter dated July 9, 1943, from yourself, signed Frank Nisley, Jr., to Mr. Paige Edwards, to which is attached a copy of a letter dated July 8, 1943, signed by yourself to John Hill, to which is attached a sheet entitled "Cost," and ask you whether you can identify that—a table of costs, I should say. A. Yes. [739]

Q. Do you recall submitting this to Metals Reserve? A. Yes.

Q. And it was on the basis of this that your toll

(Testimony of Frank Nisley.)

agreement was extended, is that correct, or subsequent to this your toll agreement——

A. Anyway, the toll agreement was extended, yes.

Mr. Archer: As Defendant's Exhibit next in order, I offer a letter dated July 9, 1943, from Nisley and Wilson to Paige Edwards, together with enclosures.

Mr. Alioto: No objection.

The Clerk: Defendant Union's Exhibit 2-R admitted and filed in evidence.

(Whereupon, letter dated 7/9/43, Nisley to Page Edwards, with enclosures, copy of letter 7/8/43, Nisley to John Hill, and statement of costs, was received in evidence and marked Defendant Union's Exhibit 2-R.)

[See Book of Exhibits.]

Mr. Archer: (Reading):

"Dear Mr. Edwards:

"Enclosed please find copies of letters sent to John Hill regarding continuation of the Toll Agreement. We have asked for an extension of the present arrangement."

First, letter July 8, 1943, from Frank Nisley, Jr., to John Hill:

"Dear Mr. Hill: [740]

"We are submitting a report of our costs per pound of V_2O_5 produced during the month of June which we think is a representative cost of our operation. These costs very clearly compare with the

(Testimony of Frank Nisley.)

costs which we presented to Mr. Burwell and Mr. Whitaker at the time the Toll Agreement was drawn up.

"Although we have not been able to reach our capacity due to explanation shown in letter enclosed, we are satisfied to continue under the same terms and conditions as specified in the Toll Agreement dated January 26, 1943, which we are now operating under. We feel that the extension of the Toll Agreement should continue the operation for as long as the Metals Reserve Company is purchasing ores in the Gateway District.

"We would appreciate your immediate attention to this matter."

Then your statement of costs, which you state to be representative, shows costs of 80.52 cents per pound, V_2O_5, do they not, Mr. Nisley? (Handing to witness.)

A. (Witness examining): Yes. At the time we started under the metal reserve operation, of course we had put in some equipment and we found that in addition to the roasting equipment that we had to install another complete set of leaching lines [741] to the tanks, to our leaching equipment. We were being held up in getting out leaching through, and we had to buy pipe and valves and things in order to complete this installation. We had explained to Mr. Burwell and Mr. Whitaker at our meeting in Denver that the more ore we put through the plant —in other words—the larger the capacity, the lower would be our costs on production.

(Testimony of Frank Nisley.)

Q. Your costs in June were 80c a pound, approximately, weren't they?

A. Apparently so, from that letter. I think that's correct.

Q. Now, Mr. Nisley, this was just the plant costs and does not include the cost of the ore, does it? Do you want to take a look at it?

A. No, that's correct. That's plant costs, management, profit and so on.

Mr. Alioto: The letter makes reference to an enclosed letter. Do you have it?

Mr. Archer: That would be the next exhibit.

Mr. Alioto: Very well.

Mr. Archer: And now, do you know what recovery you were getting at about this time from your plant, your operation?

A. Well, to explain that, I will have to go back into the method that the Metals Reserve used to determine recoveries. Now the plant itself, our own chemists and our own staff, [742] figured the recovery based upon the head or the ore that we received from Metals Reserve against the tailing that we were taking out at the end, at the end of the process, and the difference representing the material, the vanadium, we were taking out of the ore would be recoverable vanadium. The Metals Reserve Company or, rather, John Hill of the United States Vanadium Corporation had us clean out the plant entirely and start from scratch. And we had to, of course, fill up our ore bins, fill up our roasters, fill up our leaching tanks, fill up our solution tanks.

We had quite a loss in the fusing furnace. This

(Testimony of Frank Nisley.)

material, as you melt it, first runs into the brick and fills the brick in your fusing furnace. When that is once filled, then the material begins to flow out of your furnace. That material is tied up all during the time you are operating until you clean it out. So we had quite an inventory there in the plant itself.

As a matter of fact, the first month that we operated they called us in and Mr. Hill said, "We are going to have to shut your plant down because the amount of ore that was delivered to the plant and the amount of fused vanadic acid that you delivered back to us does not jibe. You do not have 70% recovery."

And I showed him that — he knew this himself, being an engineer—that it was impossible for a person to accept ore and deliver back 70% of the material when we had to fill the [743] melt circuit.

He said it didn't make any difference, we had to shut the plant down.

Paige Edwards happened to be there that day, and Paige Edwards was called into the conference, and Paige asked Mr. Hill, he said, "Exactly how did you handle it at Durango?"

And Mr. Hill said, "At Durango we filled the circuit up completely, first, then we started figuring recoveries from that point on."

Mr. Edwards said, "Then why don't you treat these fellows exactly the same way?" And so Mr. Hill then appointed Charles Yetters to go down to the plant and make a check of these inventories that were carried in the plant continuously. And

(Testimony of Frank Nisley.)

from there on, these inventories were made.

However, the recoveries that you are talking about, actually when they talk recovery they were talking fused oxide against the vanadium in the heads to start with.

At the time we closed down, in January or December 31 of '43, actually in January we delivered to Metals Reserve some eight or ten thousand pounds of material that we had tied up in the plant during that period, which added to that recovery. If it would have been counted, the recovery would have been much higher than these figures actually show that they're talking about.

Q. I don't think these figures show recovery here. I was [744] asking you whether you recalled what your recovery was.

A. Yes, the recovery was running between, as I recall, 70 and 75%, according to our records.

Q. I believe you stated, Mr. Nisley, that your production, according to that sheet, are about 80c per pound V_2O_5, isn't that what that statement shows?

A. Yes, that was about the price Metals Reserve Company was paying us.

Q. Now, when you talk about an 80% or 70%, 75% recovery, what you mean by that — don't you mean that you don't get all the vanadium out of the ore, that you buy the ore for so much a pound, a certain percentage in it, but it goes through your plant and some of it is lost in the process, in other words?

A. That's correct.

(Testimony of Frank Nisley.)

Q. So you get only 75% or 70 to 75%.

Well, now, I believe you testified that prior to June of 1942 you were paying 21c a pound for ore, isn't that correct? A. That's correct.

Q. Now, at 70% recovery, that would mean the ore was costing you really 31c, wouldn't it?

A. Approximately.

Q. So your costs on 21c ore—this is 21c ore—we have to divide it by seven-tenths because we only have about 70% recovery. So your costs on that basis were about $1.11 a pound, isn't that correct?

A. Well, what period are you talking about?

Q. I'm talking about—I am just saying, assuming you got ore—this is your 80c figure in June of 1943, and assuming that you were operating independently and paying 21c for ore, your costs would have been $1.11, wouldn't they?

A. You are trying to get two things entirely different. If you assume what you are talking about, that is correct.

Q. That is what I say, you are operating under a toll agreement, it didn't make any difference to you what the ore cost, did it, because Metals Reserve was buying it and you were processing it and they would take the output. So the only figure we have then is the 80c figure from actual operation. These prices here are assumed prices.

A. That's correct.

Q. That's right. But assuming that price for ore, your output would have cost $1.11 a pound.

Now, assuming that your production costs stayed the same, you will recall that when the toll agree-

(Testimony of Frank Nisley.)

ment was terminated the price of ore had gone up to 31c, had it not?

A. At the time our toll agreement was cancelled, Metals Reserve Company was still buying the ore.

Q. And you said that they were paying a 10c subsidy, did you not?

A. They were paying different miners different prices.

Q. I thought you said a 10c subsidy. [746]

A. Originally that was true, but subsequent to that they made different deals with different miners, and they paid each miner different prices.

Q. Was it above 21c?

A. Well, I wasn't familiar with that because we weren't buying ore at that time.

Q. Well, let me put it this way: Could you have paid 31c for ore and sold your oxide at the ceiling price of $1.10, assuming your production costs at 80c a pound?

A. Well, this 80c figure you're talking about, Mr. Archer, was made in June at the very onset of our operation under the toll agreement. Later, our plant was producing a good deal more vanadium and our costs were considerably reduced in the later operation over what it was the first few months.

Q. But at the 80c costs, you could not buy ore at 31c and sell in a market at which the ceiling price was $1.10, could you?

A. I think we could. It would have reduced our profit. You must remember that the 80c contained the profit that we were making at the time. So it

(Testimony of Frank Nisley.)

would only have been a matter of one cent—yes, we could have operated.

Q. You mean at the 21c figure or the 31c?

A. The 31c figure.

Q. Well, what would have been your costs if you had been buying ore at 31c with the 70% recovery, what would that give you? That would give you about 44c ore cost, wouldn't it? [747]

A. Well, if the recovery stayed at 70%, that would be true.

Q. Well, you want to make it 80%? It's going to be about 3.9—39c, isn't it? So 39c ore cost with the production costs of 80c, you're $1.19, aren't you?

A. That's correct.

Q. Well, as a matter of fact, the difficulty out on the Colorado Plateau was that the ceiling price for vanadium oxide under contract sales had been set at $1.10 since 1939 and wasn't increased until well after the war, while the price of ore went way beyond the 1939 level?

A. I don't believe that is correct, Mr. Archer. To my knowledge, the ceiling price of vanadium wasn't set at $1.10. That was the established market price.

Q. Oh, you think you could have sold — after price controls went in, you think you could have sold vanadium oxide at over $1.10 on a contract basis to Mr. Leir?

A. After the ceiling prices went in, of course that would be set at $1.10.

Q. That is what I mean.

(Testimony of Frank Nisley.)

A. That wasn't true in 1939.

Q. That's right. It had, of course, in 1939—the market price, that is what I'm getting at—the market price was $1.10, or whatever it was in '39, but, in any event, starting with at least by the time you started operating at Gateway, soon after that price controls went in and the price was set at $1.10 for oxide, and that continued throughout the war. [748]

Meanwhile, in '42 the price of ore jumped 40c a pound, isn't that correct?

A. Metals Reserve Company—the United States Vanadium people were buying the ore at the increased price, that is true.

Q. Metals Reserve Company or United States Vanadium?

A. United States Vanadium Corporation.

Q. As agent for Metals Reserve?

A. For Metals Reserve.

Q. I now show you letter referred to in the last exhibit, being letter dated July 8, 1943, from Frank Nisley, Jr., to John Hill, and ask you whether you can identify that. (Handing to witness.)

A. (Witness examining): I certainly can. This refers to situations we were having in the mill. It enters into this picture here a little bit. I would like to say that these costs that we were—that were being shown here — we enlarged the plant, we of course had to hire a few more men; we decided we needed housing for those men, and that is what this letter refers to, the fact that we had applied to the

(Testimony of Frank Nisley.)

Government for housing which they were building at Naturita and Uravan.

And some of these costs that are reflected in this picture come out of that. We, for instance, just for an example, the war housing people said that they would put in housing for us if we would furnish water supply and do certain things that they required, and those things were done and those things are [749] reflected in this cost here, again, which after they were once done our costs would be dropped back down. [749-A]

We actually put in an order for that housing.

Q. Isn't that typical though of an operation out on the field and what you have to do?

A. That is typical, but that cost does not continue after you get your housing. Then you are set and your costs drop down. It is an additional cost that has to be reflected in your costs at the time it is put in.

Mr. Archer: As Defendant's Exhibit next in order I offer a letter dated July 8th, 1943, from Frank Nisley, Jr., to John Hill.

Mr. Alioto: No objection.

(Letter July 8, 1943, Nisley to Hill, was thereupon received in evidence and marked Defendant Union's Exhibit 2-S.)

Mr. Archer: This is dated July 8th, 1943. This is a part of the last group of letters which I read from Frank Nisley to John Hill:

(Reading)

(Testimony of Frank Nisley.)

"Dear Mr. Hill: On November 25th, 1942 we received a telegram that the Toll Agreement had been approved. We realized at that time that we must have some housing facilities in order to operate at a twenty ton capacity. We immediately applied for houses through the National Housing program.

"During the past three months we have not been [750] able to hold a full crew at the mill due to the housing situation. Because we have not been able to keep a full crew, we have been unable to get our tonnage near the twenty ton daily capacity which is our mill capacity. Although we have reached the twenty ton mark some days we were not able to hold it at that figure due to lack of labor. Many men applying for work would not stay here because of the fact that there are no available houses or places to stay.

"We have just received the following letter from Mr. Picton of the National Housing Agency:

"'Mr. Harry C. Gardner

St. Regis Hotel

Grand Junction, Colorado

'Dear Mr. Gardner:'"

Q. Who was Mr. Harry C. Gardner?

A. Mr. Gardner had taken over the assets or the plant at Gateway and he was—we might consider him a partner in this operation.

Q. A partner of yours?

A. Yes. He owned the plant and our contract, our lease contract was from him.

Mr. Archer: (Resuming reading)

(Testimony of Frank Nisley.)

"'We have just received notice from Washington that new public construction for 23 families [751] and 6 single persons has been approved for Gateway, Colorado.

'Sincerely yours,

'John M. Picton

'Senior Housing Representative.'

"This program will take care of our labor situation. As soon as we can obtain a full crew with housing facilities for them and their families, we can reach the mill capacity without trouble."

Q. Now, Mr. Nisley, you were in the courtroom the other day, were you not, when Mr. Burwell testified? A. I was.

Q. You were here for most of his testimony, weren't you? A. Yes.

Q. And I believe you already testified that you were supplying your vanadium oxide to the Apex Smelting Company, which was making ferro-vanadium out of it, is that correct?

A. That is correct.

Q. Did you hear Mr. Burwell testify that in calculating the costs of ferro-vanadium, because there are two pounds of oxide that go into each pound of ferro-vanadium, you more or less double the oxide cost and add a process cost of around 50 cents, what he called his kitchen arithmetic?

A. I heard that.

Q. Let us take out your 21-cent ore price figure, 20 per [752] cent recovery, and your June costs of 80 cents. If you double your oxide cost you come to

(Testimony of Frank Nisley.)

$2.22, which is, the first part of it being kitchen arithmetic, and a 50-cent cost for conversion to ferro-vanadium, gives you $2.72 cost, does it not?

A. That is correct.

Q. Do you recall that Mr. Burwell testified that in his opinion the price of ferro-vanadium should have been reduced from the $2.70, $2.80 and $2.90 to $2.25? A. Yes.

Q. If the price of ferro-vanadium had been $2.25, so that the persons to whom you were selling it would have had a $2.25 market, could they have bought your oxide at $1.11 and operated at a profit, assuming Mr. Burwell's assumptions?

A. I believe Mr. Burwell also testified that the cost of the vanadium produced at other plants—not Gateway but Durango, was also above $1.10 a pound to Metals Reserve Company?

Q. You are exactly right.

A. So I can see no difference between our operation and that of Durango, Uravan or any place else.

Q. You are exactly right, so you could not buy at that price and sell and meet a market price of $2.25, could you?

Mr. Alioto: That is argumentative, if your Honor please, with a witness who is not in the ferro-vanadium business. It assumes a 50-cent cost of doing business. [753]

The Court: I think it is a proper question. Overruled.

A. Mr. Archer, from a practical standpoint, Metals Reserve Company was not selling it to these

(Testimony of Frank Nisley.)

concerns at $2.20 a pound or — you said a minute ago the selling price was $1.10 as far as Metals Reserve Company was concerned.

Q. That is correct.

A. So that anybody to whom the material was allocated during that period would pay the $1.10, isn't that right?

Q. That is correct.

A. So I don't see where it has any bearing on this question.

Q. What I am getting at is: Assuming that your suppliers, if you were operating in a private market, selling at $1.11——

A. They couldn't obtain the material except through the War Production Board and the Metals Reserve Company. They had to buy it through them. We couldn't sell it to them, even prior to this, unless the War Production Board allowed us to do so.

Q. You couldn't sell it unless the War Production Board allocated it after December 1, 1941, could you?

A. I don't remember just when they——

Q. That was the telegram I just showed you.

A. Whatever that time was, that is true.

Q. My point is, though, assuming the market price of [754] the ferro-vanadium had been at Mr. Burwell's figure of $2.25, and assuming Mr. Burwell's kitchen arithmetic is correct, could a person have bought your product at either the $1.10 or

(Testimony of Frank Nisley.)

$1.11 figure there on the board and manufactured and sold ferro-vanadium at $2.25?

Mr. Alioto: Your Honor, this witness is not in the ferro-vanadium field. He is not competent to answer that.

The Court: Overruled. If you have an opinion I think you can so state.

The Witness: My opinion is, your Honor, if you can't buy the material from any source other than the Metals Reserve Company and the War Production Board, and the price was $1.10 a pound, it is irrelevant. It doesn't make any difference what these costs are here. If I was in the market buying it, I could buy it at $1.10 a pound, regardless of what the cost was at the time.

Q. (By Mr. Archer): What you are really saying, is it not, Mr. Nisley, is that during this period there just was not a free market because of the governmental controls? A. That is true.

Q. (By the Court): About how much time did that cover? From 1941 to 1944?

Mr. Archer: I think Mr. Nisley has testified that he finished on December 31st, 1943.

Q. (By the Court): During that period of time, then, [755] there wasn't what you would call a free market?

A. Your Honor, we were producing after Metals Reserve Company started purchasing ore. However, our ore supply is tied only to the Gateway Alloy Company that owned these mines, and we were sell-

(Testimony of Frank Nisley.)

ing our product at that time to the Continental Ore Company.

Q. What I am getting at is, there could not be a sale of this material during this war period except with the consent of the War Production Board or the governmental agencies?

A. That is true, your Honor. The War Production Board had to allocate that material to some purchaser.

Mr. Archer: Does your Honor want to take a recess?

The Court: Yes. We will take a ten-minute recess.

(Recess.) [756]

Mr. Archer: Your Honor, I wanted to read one paragraph from the original amendment to the toll agreement which was signed by Mr. Van Fleet as Vice-President, United States Vanadium Corporation, as agent for Metals Reserve Company, Frank Nisley and Hays C. Wilson, a partnership, doing business as Nisley and Wilson, by Mr. Nisley and Hays C. Wilson. Article 16—an additional Article 16 was added, as follows:

"In making this agreement, United States Vanadium Corporation is acting solely in its capacity as agent for Metals Reserve Company and no liability or responsibility shall attach to United States Vanadium Corporation in its individual capacity by reason of executing this agreement, or by reason of any matter or thing arising hereunder."

Q. Now, Mr. Nisley, I have here a copy of the

(Testimony of Frank Nisley.)

supplemental agreement which was entered into as of July 6, 1943, signed by Mr. Wilson and again by Mr. Van Fleet, and ask you to identify that (handing witness).

A. (Witness examining): That is the supplemental agreement.

Mr. Archer: Offer the agreement dated July 6, 1943, supplemental agreement, as Defendant's Exhibit next in order.

Mr. Alioto: No objection.

The Clerk: Defendant Union's Exhibit 2-T admitted and filed in evidence. [757]

(Supplemental agreement July 6, 1943, received in evidence and marked Defendant Union's Exhibit 2-T.)

Mr. Archer: Paragraph I states:

"Extension of term. Subject to the condition that on or before July 28, 1943, lessee shall submit to agent written evidence satisfactory to agent's counsel that H. I. Gardner has, prior to July 28, 1943, exercised his option to purchase the mill site occupied by the Gateway plant referred to in said toll agreement, and has thereby or otherwise acquired valid, legal and equitable title to said mill site, the term of said toll agreement is hereby extended from July 1, 1943 to 12:00 o'clock noon, January 1, 1944."

Q. Now, Mr. Gardner did exercise his option to purchase the mill site? A. He did.

Q. And it was extended to January 1, 1944, pursuant to this agreement? A. That's correct.

Q. I show you now a letter dated December 13,

(Testimony of Frank Nisley.)

1943, from yourself to Mr. Leir (handing witness) and ask you whether you can identify it.

A. (Witness examining): That is a letter we wrote to Mr. Leir. [758]

Mr. Archer: Offer as Defendant's Exhibit next in order letter dated December 13, 1943 from Frank Nisley, Jr., to Henry Leir.

Mr. Alioto: We have no objection.

The Clerk: Defendant Union's Exhibit 2-U admitted and filed into evidence.

(Letter dated December 13, 1943, from Frank Nisley, Jr. to Henry Leir, received in evidence and marked Defendant Union's Exhibit 2-U.) [See Book of Exhibits.]

Q. (By Mr. Archer): This was just prior to the end of the toll agreement, was it not?

A. That's correct.

Mr. Archer: (Reading)

"Dear Mr. Leir:

"We have been informed by the United States Vanadium Corporation, as agents for Metals Reserve Company, that the present contract with them will not be renewed after the expiration date of January 1, 1944. The M.R.C."——

that refers to Metals Reserve Company, doesn't it?

A. That's right.

Mr. Archer: (Reading)

"The M.R.C. have about 3500 tons of raw ore stockpiled at our plant. We do not know yet what will be done with it. The trend in this section is for Metals

(Testimony of Frank Nisley.)

[759] Reserve Company to relinquish ore-buying contracts and drop out of the ore-buying business. Control of production is to be returned to individual companies. The most serious problem which will arise out of the change of control, as far as the production of vanadium is concerned, is the buying of vanadium inventories. The M.R.C. have raised the price of ore to such a high level that it will make the cost of the finished product 20 cents over the old price of $1.10. It will not be possible, at the present time, at least, to buy the crude ore at the prices existing before the M.R.C. began buying ore. The M.R.C. raised the raw ore price from the old level of 21 cents to 31 cents per pound of contained V_2O_5. The hauling price was also raised on the ore. The raises will amount to about 20 cents per pound of recovered vanadium pentoxide. This raise can be readjusted in time, but at present labor is scarce and also costs more per ton of ore produced. The raise in ore price is the only serious problem which we see in the way of production.

"We would appreciate any information which you may be able to give us concerning a market for the vanadium after the first of the year, and also the price. We would like to formulate plans as soon [760] as possible for the change in operation.

"We appreciate very much your past cooperation and sincerely hope that plans can be made for an operation which will be of mutual benefit."

Q. Now, in December of 1943 you did not have

(Testimony of Frank Nisley.)

in your plant at Gateway an acid-leaching process for producing uranium oxide, did you?

A. No, we didn't. Well — let me modify that a little bit. In our process we used a mild leach. We didn't use as strong an acid leach as you're probably referring to there, in other words, one that would completely take out the uranium that was in the ore.

Q. Well, your plant wasn't equipped to produce uranium oxide, was it?

A. Only in what we recovered in sludge, that is correct.

Q. Those are the sludges, I believe, which Mr. Burwell testified were processed at Durango for the Army?

A. No, we made a small concentration of sludge but we didn't do it on the scale——

Q. Didn't those sludges belong to M.R.C.?

A. They did.

Q. And didn't M.R.C. ship those down to Durango for processing at the Army plant?

A. I presume that those were picked up with the tailings. We drained the sludges out in the tailing pile, keeping them [761] separate from the regular tailings.

Q. Didn't Mr. Leir suggest to you at this time that you put in the machinery for a process which was necessary for processing uranium oxide?

A. I believe he did. I know we did investigate the possibility of doing that. We, in fact, were given permission to look through the plant at Uravan, and we later made a study of that through a company

(Testimony of Frank Nisley.)

at Salt Lake City as to what it would take to put that sort of a thing in. But in talking with Mr. Burwell he told us that since we were under this toll agreement that that—he was at that time running the Army research program, the Army research program——

Q. You mean the Manhattan Project?

A. It was part of the Manhattan Project, yes. He told us that since the material belonged to the Metals Reserve Company and that our toll agreement was going to be up right away, that it wouldn't be feasible for us to put that in, for those tailings.

Q. I now show you a telegram dated April 4, 1944, from yourself to Continental Ore Company, and ask you whether you can identify it (handing witness).

A. (Witness examining): I believe that is a copy of a wire that we sent to Continental Ore Company.

Mr. Archer: As Defendant's Exhibit next in order, I offer the telegram dated April 4, 1944, from Frank Nisley, Jr., [762] to Continental Ore Company.

Mr. Alioto: No objection.

The Clerk: Defendant Union's Exhibit 2-V admitted and filed into evidence.

(Telegram April 4, 1944, Nisley to Continental Ore Company received in evidence and marked Defendant Union's Exhibit 2-V.)

(Testimony of Frank Nisley.)

Q. (By Mr. Archer): This was after the termination of the toll agreement and just actually prior to the time you went in the Navy?

A. I believe that's correct.

Mr. Archer: (Reading)

Telegram from Frank Nisley, Jr., to H. J. Leir, Continental Ore Company:

"Refer Our Letter March 24 Concerning Outlet For 300,000 Pounds Vanadium at Rate 600 Pounds Per Day. If You Cannot Handle Above Amount at Present, Please Wire Us Amount You Could Handle."

Q. I now show you, Mr. Nisley, Mr. Leir's reply dated April 4, 1944, to you, and ask you whether you can identify that (handing witness).

A. (Witness examining): Yes.

Mr. Archer: Offer as Defendant's Exhibit next in order telegram from Continental Ore Company to Frank Nisley, Jr., dated April 4, 1944. [763]

The Clerk: Defendant Union's Exhibit 2-W admitted and filed into evidence.

(Telegram April 4, 1944, Continental Ore Company to Frank Nisley, Jr., received in evidence and marked Defendant Union's Exhibit 2-W.)

Mr. Archer: (Reading) Mr. Frank Nisley, Jr.

"Re Tel. Will Give You All Possible Cooperation and Wire You in Few Days What Monthly Quantities Can Take From You. Incidentally Since Future Operations Will Be Under New Name, Sug-

(Testimony of Frank Nisley.)

gest you Settle Old Account Mr. Pleasants. Regards."

Q. What did the "* * * old account Mr. Pleasants" refer to?

A. We had been trying to negotiate for the purchase of the stockpile at Gateway and we had hired Mr. Pleasants to represent us in Washington in these negotiations.

Q. You mean he was negotiating with M.R.C.?

A. He had been negotiating, I believe, with M.R.C., and also in regards to—we were also—. This goes back quite a little way. We had started in, at the time the toll agreement was to expire, we were objecting to the fact that they were shutting our plant down without shutting the other plants down, which they told us they intended to do. I believe you read Mr. Hill's — some correspondence from him a short time ago in which he had told us that all the plants would be shut down, that the mining contracts would be relinquished and we [764] would be allowed to go back into an independent situation again.

Well, that wasn't carried out that way. We were shut down but the other plants were not shut down; they were still operating and they were still buying ore in the area. So we were sitting there with a plant without — we couldn't buy ore from other sources. We had been contesting that, also.

Q. And you sent Mr. Pleasants to Washington to see Mr. Hatch of the War Production Board, and to see Senator Johnson, isn't that correct?

(Testimony of Frank Nisley.)

A. I think that's correct. [764-A]

Q. So he had been unsuccessful?

A. That is correct.

Q. I now show you a copy of a letter dated April 14, 1944, from Henry J. Leir to yourself and ask you whether you can identify that.

The Court: Did you read the last exhibit?

Mr. Archer: I guess I did. That was Mr. Leir's reply to this. I will read it again while Mr. Nisley is looking at that. This is Exhibit U-2-W

(The exhibit was re-read.)

The Witness: I believe that is a copy of the letter.

Mr. Archer: These came from Mr. Leir's files, so I don't have the originals.

Mr. Alioto: No objection.

Mr. Archer: As defendants' exhibit next in order I offer a letter dated April 14, 1944, from Henry J. Leir to Frank Nisley, Jr.

(The letter referred to was thereupon received in evidence as Defendant U's Exhibit 2-X.)

Mr. Archer: (Reading.)

"Dear Mr. Nisley: Re: Vanadium.

"We wish to refer to your letter of March 24th and your wire of April 4th regarding resumption of your operations." [765]

Q. That is the April 4th telegram regarding 300,000 pounds of vanadium, is that correct?

A. I believe that is correct.

(Testimony of Frank Nisley.)

Mr. Archer: "While we cannot give you a definite answer today, we hope to do so sometime next week when we will wire you.

Very truly yours,

Continental Ore Company."

Q. I now show you a letter dated May 15, 1944, from yourself to Henry John Leir and ask you whether you can identify that. A. Yes.

Mr. Alioto: We have no objection.

Mr. Archer: As Defendants' exhibit next in order I offer a letter dated May 15, 1944, from Frank Nisley to Mr. Henry John Leir.

(The letter referred to was then received in evidence and marked Defendant U's Exhibit 2-Y.)

[See Book of Exhibits.]

Mr. Archer: (Reading) "Dear Mr. Leir:

"Since I have been called to service in the Navy and leave day after tomorrow, I thought it best to write you a note regarding the status of the mill."

Mr. Alioto: What is the date on that?

Mr. Archer: May 15, 1944. This is following the telegram. [766]

"For the time being Mr. Wilson, Mr. Gardner and myself have decided to leave the mill intact pending future developments. Mr. Wilson intends to go to other work. Mr. Gardner therefore will look after the plant."

Q. He is the one you referred to as being a sort of partner? A. That is right.

(Testimony of Frank Nisley.)

Mr. Archer: "Should anything of interest develop, I would suggest that you contact Mr. Gardner at Glenwood Springs. As you know, Mr. Gardner is doing other work and has kept the chemist, who was with us since the mill started and who is familiar with the plant operation, with him. The plant could be operated again should the occasion demand on fairly short notice.

"There is one other matter which should be straightened out. As you know, we had some drums on hand which belong to you. At the time we started production under the M.R.C. program, you will remember that you had an order for our production through the M.R.C. We wrote you concerning the matter and your Company wrote us that we could use the drums to ship the material in. Later, however, the program was changed. However, our material was stored in your drums. Since you did not take the material, the drums were stored in the warehouse in Grand Junction. A few days ago [767] the M.R.C. shipped the material from Grand Junction. I informed Mr. Hill again that the drums were your property. He asked me that we find out the price on the drums and they would pay for them if it would be all right instead of returning them as the cake is to be stored and, therefore, will not be removed from them except by special demand."

The rest concerns the disposition of those terms.

Q. Now, I show you a letter from Mr. Gardner dated July 12, 1944, in longhand. Attached to it is

(Testimony of Frank Nisley.)

a copy which may be more legible. Maybe you can read it. It is longhand. Are you familiar with it?

A. That is, I believe, Mr. Gardner's signature, yes.

Mr. Alioto: We have no objection.

Mr. Archer: As defendants' exhibit next in order I offer a letter dated July 12, 1944, from Mr. Gardner to Continental Ore.

(Whereupon the letter referred to was received in evidence as Defendant U's Exhibit 2-Z.)

Mr. Archer: (Reading) "Continental Ore Company.

"Dear Sirs:

"I have been unable to get anyone interested in starting the mill at Gateway. Will lease mill for 3c per pound produced, if you can find anyone interested. It could be put in operation in 30 days. It could [768] produce about 15,000 pounds per month."

The Court: At the time this letter was written, was Mr. Gardner the owner of the mill?

The Witness: He was, your Honor. He was the owner of the old equipment. Mr. Wilson and myself owned the equipment we had installed there, which was still in the plant.

Mr. Archer: As defendants' exhibit next in order I offer a letter from Mr. Wolf of the Continental Ore Company to Mr. Gardner replying to the letter dated July 24, 1944.

(Testimony of Frank Nisley.)

Mr. Alioto: No objection.

(The document referred to was received in evidence as Defendant U's Exhibit 3-A.)

Mr. Archer: (Reading) "Mr. H. I. Gardner, July 24, 1944.

"Re: Vanadium Mill at Gateway.

"Dear Mr. Gardner:

"We have your letter of July 12th advising that you have been unable to get anyone interested in resuming mill operations at Gateway and that you would be ready to lease the mill at a price of 3c per pound produced. Of course, it is difficult for us to do anything from New York regarding the resumption of operations, but we will keep it in mind should an opportunity present itself. Please do the same at your end, because we feel it is a pity to let the mill [769] stand idle. In any case, we can use the material and would like to see the mill reopened at an early date."

Q. I now show you a letter dated July 14, 1944, from Nisley & Wilson, Vanadium Mill, to Continental Ore Company. It is signed by Mr. Wilson, apparently by Mrs. Wilson.

A. That is apparently a letter signed by Mr. Wilson.

Mr. Archer: As defendants' exhibit next in order I offer a letter dated July 14, 1944, from Nisley & Wilson to Continental Ore.

Mr. Alioto: Do you have the letters referred to

(Testimony of Frank Nisley.)

therein, July 5th and the telegram? Were they attached, Mr. Archer?

Mr. Archer: I think they are in evidence. I don't have them here at any rate.

Mr. Alioto: No, it says, "Telegram regarding the possible time required to open the Gateway mill under a regular contract."

Mr. Archer: These are, of course, from your files so I don't know what you are referring to.

The Court: Go ahead.

(Whereupon the letter referred to was received in evidence as Defendant U's Exhibit 3-B.)

Mr. Archer: Maybe it wasn't in the file. These are from Mr. Leir's files. July 14, 1944, Nisley & Wilson to Continental Ore Company, re: Vanadium Mill, H. I. Gardner. [770]

"Dear Mr. Wolf:

"I have today written Mr. H. I. Gardner asking him to give you a letter of July 5th and a telegram of an earlier date regarding the possible time required to reopen the Gateway Mill under a regular contract and to give this as early as possible attention. I am away from Gateway at present, but can be contacted at Grand Junction in care of the Virginia Hotel or at my home address at Rifle, Colorado. I will be very glad to cooperate with you in any transaction which might lead to the re-opening of the Gateway mill immediately or in the near future.

(Testimony of Frank Nisley.)

"The Metals Reserve stockpile is untouched as yet, and a considerable number of miners are still in the district awaiting a place to sell the mill ore. If you should see any possible way for us to operate, for new parties to take over our lease or any other arrangement, I would be more than glad to hear from you or Mr. Leir on the subject."

The Court: Signed by whom?

Mr. Archer: Signed by A. C. Wilson, who is Mr. Nisley's partner.

Q. As the last exhibit, Mr. Nisley, I show you a longhand letter from yourself to Mr. Leir from down at the Navy Material School and I have attached to it a typewritten copy. It may [771] be a little faster to read than the other, and I ask you if you can identify that. A. Yes.

Q. While Mr. Alioto is looking at that, Mr. Nisley, do you know whether the Continental Ore Company ever contracted for the 300,000 pounds annual production of the Nisley & Wilson mill in 1944?

A. I don't presume they did. What we refer to, we estimated that the stockpile at Gateway contained approximately that much V_2O_5.

The Court: If you could have bought the stockpile at a reasonable rate and had a purchaser for the output, would you have re-opened the mill?

The Witness: Your Honor, there were more things involved than that. In the first place, this matter of uranium was involved, and we knew that we would have to go into uranium production in

(Testimony of Frank Nisley.)

order to be successful in producing that ore. In fact, one of the reasons they gave for shutting our plant down at first was because we didn't have a uranium reduction plant at the time at Gateway. So, it is hard to say, in view of other things that affected that.

Mr. Archer: As defendants' exhibit next in order, I offer Mr. Nisley's letter to Mr. Leir.

(The letter referred to was then received in evidence and marked Defendant U's Exhibit 3-C.) [772]

[See Book of Exhibits.]

Mr. Archer: (Reading.)

"Frank Nisley, Jr., to Mr. Leir, from the United States Navy Electrical Engineering and Radio Materiel, University of Houston, Houston, Texas."

Q. Is that right?

A. Electronics Engineering.

Mr. Archer: I was in R.T., too.

"Frank Nisley, Jr., to Mr. Leir, October 8, 1944.

"Last week Mr. Wilson wrote me regarding the Gateway plant. As you may know, Mr. Gardner isn't interested in operating it himself. He is interested in contracting and that keeps him busy."

Q. Mr. Nisley, did that refer to the fact that the government withdrew from location some one million acres of potential vanadium and uranium-bearing ore land in the Colorado Plateau?

A. I presume it did.

Mr. Archer: I have no further questions. [773]

(Testimony of Frank Nisley.)

Cross Examination

Q. (By Mr. Holland): Mr. Nisley, you had very little contact with Vanadium Corporation in connection with your operations in the Nisley and Wilson mill, is that correct?

A. That's correct. About the only contact we had with the Vanadium Corporation was at the time we sold a few stockpiles to them.

Q. As a matter of fact, the Vanadium Corporation rather did you a favor on that occasion, didn't they?

A. No—at least it got rid of our material. We sold it.

Q. I mean, you had received word from Apex Smelting not to ship any material until further notice, isn't that correct? A. That's right.

Q. And you had this material on hand?

A. That's correct.

Q. And you had also borrowed some money against it in order to operate, hadn't you?

A. Yes, we were borrowing from the bank against it.

Q. And you approached Vanadium Corporation and asked them to take it off your hands so that you could square-up with the banks, isn't that correct? A. That's correct.

Q. And as far as you are concerned, your relations with Vanadium Corporation were very satisfactory, isn't that correct? [774]

A. As far as the sales were concerned, it was.

(Testimony of Frank Nisley.)

Q. You had no other relations with them, isn't that correct?

A. That's about the only relationship.

Mr. Holland: That is all.

Redirect Examination

Q. (By Mr. Alioto): Mr. Nisley, at the time that you negotiated with the Vanadium Corporation of America in connection with this 10,000 pounds of material, did they inform you that they were meeting with the Vice-President of the Apex Smelting Company? A. No, sir.

Q. Did they inform you that they were getting information about your supplies to Apex from the Vice-President of the Apex Smelting Company?

A. No.

Q. At that time, didn't they in fact offer to buy all of your production?

A. They did. They said they would take our production at $1.10.

Q. From then on in? A. That's right.

Q. But you didn't have any information about this background of dealings between Mr. Christianson of the Apex Company and Mr. Laub of the Vanadium Corporation of America at that time, did you? [775] A. I did not.

Q. Now, Mr. Nisley, direct your attention to that period of time just after or toward the termination of your toll agreement with the Metals Reserve Company and the conditions in the industry as they existed in that period of time.

(Testimony of Frank Nisley.)

To begin with, you had some meetings with Mr. Burwell, objecting to the closing down of the Nisley-Wilson plant, didn't you? A. We did.

Q. And didn't you also have some correspondence with the Government complaining about the treatment you had received at the hands of Mr. Burwell and Mr. Hill, the so-called agents of the Metals Reserve? A. We did.

Q. Do you have that correspondence with you now, Mr. Nisley? A. No, I do not.

Q. Well, do you have, in the courtroom?

A. I don't believe I do.

Q. Well, do you recall what was the complaint you made to the Government about the activities of United States Vanadium Corporation?

Mr. Archer: I object to that, your Honor. I think the record shows he was a competitor of ours at the time, and what he said back then certainly can't bind the defendants.

Mr. Alioto: No, but the conditions of the industry [776] at the time. These folks are making a point why that mill wasn't reopened, and I think any complaint he made to the Government relating to the treatment received is relevant on that point. Mr. Archer opened it up.

The Court: Overruled—the objection will be sustained. This is a matter between him and the Government?

Mr. Alioto: With him and the Government and U.S.V. was supposed to be the agent for M.R.C. at the time.

(Testimony of Frank Nisley.)

The Court: To whom did you address this letter? To whom was it written, the Government or the agent? Whom did you write it to?

A. I think we contacted the agent direct and wrote the letters directly to the Metals Reserve Company in Washington.

The Court: I don't think it is material, but I will overrule the objection and let you put it in. I don't think it is material at all.

Mr. Alioto: Well, let me ask, first of all, did you have any direct conversations with Mr. Burwell about the closing down at the plant?

A. We did. We talked to him concerning closing our plant ahead of the other plants, and we didn't feel that we should be shut down ahead of the other plants that were operating under the Metals Reserve program and, in fact, we discussed——

Mr. Archer: Your Honor, I object unless he lays the foundation for this conversation as to time and place and [777] if it concerns Mr. Burwell, I think Mr. Burwell should have been asked about that.

The Court: I think you went into that fully on his direct examination, stating the conversations with Mr. Burwell, and with Mr. Whitaker——

Mr. Alioto: I think that was a conversation in an earlier period, if your Honor please, and not in this later period. The reason I'm inquiring about it now——

The Court: Well, at the time that you had this conversation with Mr. Burwell, he was representing an agency of the Government?

(Testimony of Frank Nisley.)

A. Yes, your Honor.

The Court: Objection will be sustained. I don't think it is competent.

Mr. Alioto: Well, on the matter of the agency of the Government, Mr. Nisley, let me take you back to that conversation with Mr. Hill in October of 1942. Do you remember that conversation?

A. I do.

Q. Did you at that time make any objection to being put under an arrangement where you couldn't handle your own vanadium oxide supplies?

Mr. Archer: I object.

A. We did.

Mr. Archer: I object to the question as leading.

The Court: The question is leading and suggestive. Let him testify.

Mr. Alioto: I think he has already testified on this point fully, if your Honor please, but I will have him say it again.

Q. Do you recall a conversation you had in October of 1942? A. I do. We had received——

Q. Who was present at that conversation?

A. Myself, Mr. Wilson, Mr. Hill and later on Mr. Burwell.

Q. All right. Now, tell us what was said in the matter of private production at the time.

A. We had received a telegram from the Metals Reserve Company and, I believe, also from War Production Board, stating that the United States Vanadium Corporation had been instructed to get us under way. And we were accusing—we had gone

(Testimony of Frank Nisley.)

into Grand Junction to see Mr. Hill, Mr. Burwell regarding this telegram. They denied that they had any knowledge of it, that they hadn't been informed of any agreement to put us back into operation, and we were accusing them of not following out the Metals Reserve orders.

Mr. Hill stated at that time to us that—he got sort of angry and he stated—he said, "My salary is paid by United States Vanadium Corporation, not by the Metals Reserve Company."

Q. And how long did it take, then, to get that contract to you, from the meeting in October until you started working [779] under the Government program?

A. As I previously testified, the contract was finally dated January 26 and actually delivered to us about the 3rd or 4th of February.

The Court: I think you've been all over that on direct examination, haven't we?

Mr. Alioto: No. I think that concludes this phase of it now, if your Honor please, after this controversy with Mr. Hill, which he didn't mention in his direct examination.

Q. Now if we could take you back to this later period, Mr. Nisley. Did the partnership of Nisley and Wilson delegate Mr. Gardner to speak to Mr. Burwell about not closing this plant down?

A. We did. Mr. Gardner contacted Mr. Burwell——

Q. What happened?

A. Mr. Gardner told me that——

(Testimony of Frank Nisley.)

The Court: Now——

Mr. Archer: I object to that, your Honor.

Mr. Alioto: Just don't tell us what Mr. Gardner said.

Mr. Gardner at that time was a contractor, was he not? A. He was.

Q. And he wasn't active in the operation of the business? A. No, not directly.

Q. He was a rather substantial man in this contracting [780] business, wasn't he?

A. Yes, he was.

Q. Now, you sent him to Mr. Burwell for the purpose of trying to have him keep that plant open during this period of time? A. That's correct.

Q. Now without telling us the conversation that Mr. Gardner had with Mr. Burwell, as a result of that conversation did you get any help from Mr. Burwell about that matter? A. We did not.

Q. Now, then, when your plant was closed down, what were they doing down at Durango?

A. Durango was still operating.

Q. How long thereafter did Durango operate?

A. I can't answer that. I don't know how long it operated.

Q. When your plant was closed down, what were they doing at the Vanadium Corporation of America plant?

A. They were still operating.

Q. And how long after that did that continue to operate? A. I can't answer that.

Q. Now during the period of time when you

(Testimony of Frank Nisley.)

were making these inquiries of Continental Ore, about which we have had some correspondence here, and after your plant had been closed down by Metals Reserve, what was the situation with respect to the Gateway Alloy Mines located tributary to the Gateway mill, [781] had that been released by the Metals Reserve yet?

A. It was. Our contract terminated the 1st of January, and the ore was still being stockpiled at Metals Reserve stockpile at Gateway.

Q. In other words, after your Gateway mill was closed down or at the time your mill was closed down, did you have access to the ore deposits at the Gateway mines? A. We did not.

Q. For how long a period after January 1st did the United States Vanadium Corporation, acting as agent for Metals Reserve, continue to control those deposits?

A. Well, I don't know the exact time, but several months after we were closed down.

Q. In connection with those deposits, after you were closed down, what were they doing with the ore that was mined from those deposits, the Gateway deposits?

A. Well, it was being stockpiled at the Gateway mill.

Q. For how long a period of time did they continue stockpiling those ores there?

A. Well, I can't answer that. It was for several months after we were closed down they continued to come in.

(Testimony of Frank Nisley.)

Q. At or about the time you were writing to Mr. Leir about plans for the future, after your plant had closed down, did you make any attempt to negotiate for the stockpile of ores that were right there at your Gateway mill? [782]

A. We did.

Q. Were you able to get them?

A. We were not.

Q. What ultimately happened to that stockpile that was located at the Gateway mill, Mr. Nisley?

A. I believe it was moved to Durango.

Q. Now in connection with Durango, you were given some figures on the blackboard here as to what your costs of production may have been at the time. I think you testified there was some document that indicated cost of production of 80c?

A. That's correct.

Q. And you were asked whether you heard Mr. Burwell give certain testimony with respect to that?

A. That's correct.

Q. Now, do you recall whether or not the Durango mill had a higher cost of production—that is, the Durango mill built and managed by United States Vanadium Corporation, had a higher cost of production than the Gateway mill that you were operating?

Mr. Archer: I object to that as without foundation.

The Court: Sustained. It is immaterial.

Mr. Alioto: Except, if your Honor please, that——

(Testimony of Frank Nisley.)

The Court: No, that wouldn't have anything to do with it. There may have been different conditions or circumstances there that would have controlled the price of production.

Mr. Alioto: Well, I don't understand how it was [783] relevant here, if your Honor please.

The Court: Objection sustained. Exception allowed.

Q. (By Mr. Alioto): Did Mr. Burwell tell you at any time that they were going to close down your mill because your cost of production was out of line?

Mr. Archer: Well, I object to that as leading.

The Court: Objection sustained.

Mr. Alioto: I submit, if your Hoonr please, that the subject is relevant.

The Court: Exception allowed.

Mr. Alioto: On the ground that it is leading? Is that the objection? I don't want to go into the subject if your Honor has just shut off the subject. But I thought the objection was sustained——

The Court: I don't think it is material to go into the subject, but the objection was sustained because the question was leading and suggestive.

Mr. Alioto: All right.

Then, let me rephrase that question.

Q. Did you have any discussion with Mr. Burwell about the cost of production of the Gateway plant at or about the time that it was closed down?

A. Not to my knowledge. The only discussion we had was—the only objection they gave to us

(Testimony of Frank Nisley.)

was that we didn't have an acid-producing plant to process the tailings at that time. [784]

Q. In other words, is it correct to say that at no time did anybody object, so far as the Gateway plant was concerned, on account of any so-called cost of production?

A. There was no objection to the cost of production.

Q. Now, then, I want to inquire about what your partners were doing at or about the time that the plant was closed down. Had Mr. Gardner ever been active in the operation of the mill itself?

A. No.

Q. What was Mr. Gardner's actual business? You said "contractor," but what was the nature of his business at the time?

The Court: How's that material?

Mr. Alioto: Well, if your Honor please——

The Court: You're taking a lot of time on this case and the Court has been very generous in permitting you to offer a great deal of testimony here, much of which has nothing to do with the issues in this case. We want to try this case; we want to finish it at least this summer.

Mr. Alioto: I think we will wind up in about ten minutes, and I suggest it will be tried a lot faster than most other antitrust cases have been tried. I think we are going to wind up in about a day and a half. I think that's a pretty good record on this type of case.

The Court. Go ahead. [785] * * * * *

Tuesday, June 10, 1958—10:00 O'Clock A.M.

FRANK NISLEY

called as a witness by the plaintiff, being previously sworn, resumed the stand and testified further as follows:

The Clerk: Continental Ore et al vs. Union Carbide et al, further trial.

Redirect Examination—(Continued)

Q. (By Mr. Alioto): Mr. Nisley, there are two matters I want to cover rather hurriedly. Yesterday afternoon late you were interrogated by Mr. Archer about an exchange of correspondence between you and Mr. Henry Leir of the Continental Ore Company with respect to the conditions insofar as the Gateway plant was concerned after the termination of the Metals Reserve program at the Gateway plant. You have that examination in mind, do you, Mr. Nisley? A. Yes.

Q. Now, the letters read to you by Mr. Archer, were they the only letters exchanged by you and Mr. Leir after January 1st of 1944? A. No.

Q. There were other letters in which you purport to set out the conditions in the industry, were there not? A. That's correct.

Q. I show you, Mr. Nisley, an original telegram from [788] Nisley & Wilson to Continental Ore Company dated January 13, 1946, and ask you to look at that and then state whether or not that is a telegram that you sent to the Continenal Ore

(Testimony of Frank Nisley.)

Company on or about the date that the telegram bears.

A. Yes, January 13, 1944.

Q. Now, then, there was a letter read yesterday afternoon about an offer of 300,000 pounds of vanadium oxide, I believe. Do you recall that, Mr. Nisley? A. Yes.

Q. That referred to a stockpile that was there at the Gateway plant, did it not?

A. That's correct.

Q. And you didn't own that stockpile at the time, did you? A. No.

Q. Now, then, state whether or not the telegram that you just identified relates to the subject matter of that same stockpile and the same 300,000 pounds of oxide.

A. It does.

Mr. Alioto: We will offer it in evidence, if your Honor please, as part of the exchange of correspondence which counsel for the defendant admitted yesterday.

(Counsel examining offered documents.)

The Court: This accumulation of ore that you referred to, who was the owner of that at that time?

The Witness: Your Honor, it was owned by the [789] Metals Reserve Company.

The Court: That is the Government?

The Witness: Yes.

Mr. Archer: Your Honor, I object to the telegram on the grounds that in the latter part of it there are allegations of what we are doing, which

(Testimony of Frank Nisley.)

are thoroughly hearsay, thoroughly his conclusion, and certainly could not bind the defendant in this lawsuit.

Mr. Alioto: The problem is, if your Honor please, Mr. Archer has put in some correspondence and has left this one out.

The Court: The objection is overruled. Exception allowed.

(Mr. Holland examining offered document.)

The Court: (To jury.) You understand, this is the correspondence between this witness and the plaintiff and it is not binding upon the defendants in any manner.

Mr. Alioto: We are offering it, if your Honor please, to complete the exchange of letters and to show what this witness told Continental about the industry at the time. That is the purpose for which it is offered, in the light of the 300,000-pound offer we heard about.

Mr. Holland: Inasmuch as there is no mention of the vanadium company in the telegram, I assume it is only offered against Union Carbide, is that correct? [790]

Mr. Alioto: It is offered as part of the cross-examination of Mr. Archer yesterday, for whatever purpose that is in the record I am not prepared to say at this time, it is offered on that basis, to show what information this plaintiff received.

The Clerk: Plaintiff's Exhibit 75 admitted and filed into evidence.

(Testimony of Frank Nisley.)

(Telegram 1/13/44, Nisley & Wilson to Continental Ore, received as Plaintiff's Exhibit 75.)

Mr. Alioto: This is dated January 13, 1944, and it is addressed to Continental Ore Company from Grand Junction by Nisley & Wilson. It makes reference to another telegram to a man named Hatch.

Q. Would you be good enough to identify Mr. Hatch before I read this?

A. Mr. Hatch was connected with the War Production Board.

Q. That is the same Mr. Hatch you talked about in your examination by Mr. Archer yesterday afternoon? A. That's correct.

The Court: He was connected with what?

The Witness: The War Production Board.

Mr. Alioto: The War Production Board, if your Honor please.

(Reading.) "Continental Ore Company, 500 Fifth Avenue, New York. [791]

"We Cannot Purchase Ore 32 Cents Vanadium Contained and Sell For $1.10. Am Sending Copy of Telegram to Hatch. Quote Reurtel. You State 52 Cents Is Content Basis and Transfer Cost Is 20 Cents. Granted. But When Ore Is Milled a Percentage of Values Are Lost In Tailings. Add The Cost of These Values to 20 Cents and We Still Wish to Know Difference Between It and Our Offer of 26 Cents. Cost of 32 Cents Content Basis Makes Our Recovered Vanadium Cost 46 Cents Per

(Testimony of Frank Nisley.)

Pound Which We Cannot Stand. Durango Would Have a Similar Loss * * *"

Q. What is "Durango"—you mean the plant at Durango? A. The plant at Durango.

Mr. Alioto: (Reading.) "Durango Would Have a Similar Loss and a Raise In Costs Therefrom Whether Figured As Additional Ore Cost As We Do For Additional Milling Cost As You Are Apparently Doing. Concerning Tailings Army Has Plant Uravan Recovering Values Tailings Much Closer to Gateway. We Have Tried to Get Rid of 1500 Tons Our Old Tailings Carrying Higher Vanadium Uranium Contents Than MRC or Uravans. We Cannot Sell Them So Far At Even One Dollar Per Ton. We Question Value of Tailings At Present Under Such Circumstances We Know Exists. We See No Curtailment Program Taking Place Other Than Shutting Down Our [792] Plant With a New MRC Operation At Rifle, Continued Operation All Other MRC Plants, Continuation of Ore Purchases and Ore Contracts. It Seems to Us Definitely and Clearly USV As Agents Are Using WPB Control to Completely Monopolize The Vanadium Industry. As Agents They Have Our Ore Supply Under Contract; As Agents They Know Our Present Operating Costs and We Cannot Operate At An Ore Cost of 46 Cents; As Agents USV Used Curtailment Program to Stop Our Operation Ahead of Any Other Plants Including MRC Plants. We Received No Directive From Either WPB or MRC. We Were Forced Out of Private Produc-

(Testimony of Frank Nisley.)

tion Into MRC Program If We Wished to Continue Business, The Theory Being That The MRC Program Was Necessary For The War Production Effort. Now The Agents Are Continuing Their Program of Completely Monopolizing The Industry With The Aid of The WPB and MRC Regulations. If This Is Not The Case Why Should We Be The First and Only Plant to Be Shut Down; Why Should We Be The Only Plant Penalized By The MRC and WPB Program. If There Is No Further Justification For Producing Vanadium In Excess of Requirements, Why Are Not Government Plants Closed First Instead of Private Owned Plants and Especially Why Isn't The Purchase of Ore Stopped. We Realize That We Are Small Producers Not Appreciably [793] Affecting Vanadium Production As a Whole, Yet Our Little Business Is Going Part of The America We Are Fighting For. If The USV Is Going to Take Advantage of These War Conditions Together With MRC and WPB Aid to Completely Monopolize The Industry and Force All Others to Discontinue Business, It Makes Us Wonder Just What Our Boys Are Fighting For.

"Nisley & Wilson Vanadium Mill."

Q. Now, in connection with these negotiations referred to here and the 300,000 pounds of vanadium you spoke of, did you ever buy that from the MRC?

A. No.

Q. Metals Reserve. And you were never able to

(Testimony of Frank Nisley.)

buy at the cost that you thought you could sell and market it for? A. No.

Q. You tried to? A. Yes, we did.

The Court: Now, your controversy that you referred to in this telegram was entirely between you and the Government agents, was it?

The Witness: Well, your Honor, in an attempt to answer that, no. It goes back prior to the time that we went in the Metals Reserve Program.

The Court: Now, they owned this ore—the Government owned this ore, and you were trying to buy it, they [794] wouldn't sell it to you; is that it?

The Witness: At this time——

The Court: Yes.

The Witness: ——we had been trying to buy the ore, negotiating for it.

The Court: And the Government wouldn't sell it to you?

The Witness: Not at that time, no.

The Court: All right.

Q. (By Mr. Alioto): But this was the 300,000 pounds of ore you offered Mr. Leir and Continental; this was it, wasn't it? A. That's right.

Q. And you never had it? A. No.

The Court: That was the substance of your telegram to Mr. Leir, was explaining to him why you couldn't fill his order?

The Witness: Yes. This telegram, your Honor, was to explain to him the conditions existing in the industry at the time.

The Court: All right, proceed.

(Testimony of Frank Nisley.)

Q. (By Mr. Alioto): Now, then, as of January 31 of 1944 you wrote another letter to Continental, that I would like to show you in a moment, after counsel has finished [795] reading it.

(Counsel examining.)

Q. (By Mr. Alioto): Counsel having read the document, I show you the letter, Mr. Nisley. Would you examine it and then state whether or not that is a letter written by you on or about the date it bears?

A. (Witness examining): It was.

Mr. Alioto: We will offer this into evidence as part of the exchange of correspondence put in by Mr. Archer yesterday.

Mr. Holland: I assume it is not offered against Vanadium Corporation.

Mr. Alioto: It is offered as part of the exchange of correspondence put in by Mr. Archer yesterday—whatever the record ist on that. I don't know.

Mr. Holland: As far as Vanadium Corporation is concerned, it objects to the letter as any evidence against it. There is no reference to Vanadium Corporation in any of this correspondence and no showing that Vanadium Corporation had anything to do with the subject matter.

The Court: The letter will speak for itself.

The Clerk: Plaintiff's Exhibit 76 admitted and filed in evidence.

(Letter 1/31/44, Nisley & Wilson to Leir, received in evidence as Plaintiff's Exhibit 76.)

(Testimony of Frank Nisley.)

Mr. Alioto: This letter is dated January 31, 1944—This is after your M.R.C. program had terminated?

A. That's correct.

Q. And this is after you had attempted to negotiate for what you call this 300,000 pounds of vanadium oxide, is that right? A. That's right.

Mr. Alioto: (Reading.)

"Dear Mr. Leir:

"As you know, Mr. Gardner, Mr. Wilson and myself are owners and operators of the Gateway plant. Mr. Gardner has the old plant, and Mr. Wilson and myself have added considerable new equipment and have been operating under a contract with Mr. Gardner.

"Since the curtailment of Vanadium production and the lessening need for it, I have been called to the service. This will affect our contract with Mr. Gardner. Since the plant cannot be operated at the present time, and it doesn't look as if it could for quite some time, we are going to have to sell either our interest in the plant or dismantle it. Since I must leave shortly, we are going to have to act quickly.

"We are all very sorry to have to discontinue, but we see no other way out at present. Mr. Gardner [797] has taken an active interest in the operation and has helped us in getting our problems straightened out. The local M.R.C. told us that the mill had made a very good extraction, in fact, better than some of the others under the M.R.C. The cake was

(Testimony of Frank Nisley.)

of good quality. We had a very satisfactory operation during December, especially.

"The big mill at Uravan was closed down last Saturday night and they are letting a number of their men go. Their other plants are still operating full-blast, however. We do not believe that they will ever let the price of the crude ore adjust where we could operate at $1.10 again, at least for quite some time.

"Concerning our bill with you, we will get things straightened out shortly and send you a check. We would like to have you also include the amount we owe you for this year so it can all be straightened out at once.

"We want you to know we sincerely appreciate all you have done for us in the past. We have never had business dealings with anyone who has treated us any finer than you and we really do appreciate your cooperation and help. We sincerely wish we could continue to do business with you.

Sincerely yours,

Frank Nisley." [798]

Q. Now, with respect to the two men who were left, Mr. Nisley, Mr. Hays Wilson was not a metallurgist, was he? A. He was not.

Q. And he couldn't run that plant on his own, could he, Mr. Nisley?

A. His capacity in the plant was looking after the mechanical equipment.

The Court: A little louder, please.

The Witness: I say, his position in the operation

(Testimony of Frank Nisley.)

was that of taking care of the mechanical equipment. [799]

Q. And this is information which you transmitted to Mr. Leir, isn't it?

A. That is correct.

Q. Just a very few questions about this so-called kitchen arithmetic that was gone into for some time yesterday.

This 80-cent cost so far as the Gateway plant was concerned was the cost as of June, 1943, was it not? A. That is correct.

Q. Now, that 80-cent cost included something more than just straight actual operations at the time, didn't it?

A. Yes. Under the amendment to the toll agreement, the United States Vanadium as agents for Metals Reserve were allowed to take 10 cents per pound out of this 80 cents to apply on the R.F.C. loan. We had to amortize that loan completely in a very short time.

Q. You put that amortization of that loan completely down as a cost of business?

A. That is correct.

Q. Not just the interest, but the whole thing?

A. That is correct.

Q. In June on this 80-cent basis, in June of 1943, was your production as much as it was, say, in December, 1943?

A. No, it was not. In June, 1943, we produced 8,792 pounds net V_2O_5. By December we had increased that to 10,6—roughly 10,700, an increase of

(Testimony of Frank Nisley.)

approximately a little over twelve per cent. [800]

Q. And obviously the increased production would affect the unit cost when it is put on a per pound basis? A. That is correct.

Mr. Alioto: We have no further questions.

Recross-Examination

Q. (By Mr. Archer): Mr. Nisley, when you submitted your estimate of costs in June of 1943 to the Metals Reserve Company, didn't you state at that time that you thought your 80-cent cost was a representative cost of your operation?

A. At that time, that is correct.

Q. You thought it was representative?

A. At that time.

Q. And wasn't the reason you submitted the cost so they could determine how much you would be paid for processing the ore?

A. That is correct.

Q. And you were paid this amount for every month from June through December, 1944, weren't you?

A. That is correct, there was a——

Q. I am wrong there. June through December, 1943.

A. 1943, that is correct. There was each month a report submitted to the Metals Reserve Company as to the cost.

Q. And that report, one of which is in evidence, correctly reflects your cost, doesn't it? [801]

(Testimony of Frank Nisley.)

A. Yes, including the ten cents per pound reflected there.

Q. Regarding this exchange of correspondence in January of 1944, I believe the first exhibit that Mr. Alioto put in was a telegram in January, 1944, and I show you now a copy of Mr. Leir's reply dated January 13th, 1944, and ask you whether you can identify that. A. Yes.

Mr. Alioto: No objection.

Mr. Archer: Defendant's Exhibit next in order I offer, to complete this correspondence, Mr. Leir's reply to Frank Nisley, dated January 13th, 1944.

(The document referred to was thereupon received in evidence and marked Defendant Union's Exhibit 3-D.)

Mr. Archer: This exhibit is dated January 13th, 1944, to Frank Nisley, re Vanadium Ore from Metals Reserve.

Q. That referred to that stockpile, did it not, Mr. Nisley, the vanadium ore for Metals Reserve?

A. I believe so, yes.

Mr. Archer: (Reading)

"We confirm our wire this morning as per copy enclosed. It seems that in a wire you sent to Mr. Hatch"——

Q. Mr. Hatch was of the War Production Board, was he not? [802]

A. That is correct.

Mr. Archer: (Reading)

(Testimony of Frank Nisley.)

"It seems that in a wire you sent to Mr. Hatch where you mention the price of 52 cents and the $8.00 freight differential, you and Metals Reserve computed your respective figures on different bases. Metals Reserve seems to talk about the price per pound of recovered V_2O_5, whereas you talk about the price per pound of V_2O_5 in the crude ore.

"Mr. Hatch incidentally pointed out that if the stockpile were milled at Durango instead of at your plant, values could be extracted from the tailings, which is not the case if you process this stockpile ore. This fact alone, Mr. Hatch claims, cancels out the freight difference. In other words, it would make it worthwhile for Metals Reserve to spend the $8.00 per ton for the freight. It seems obvious to us that although he did not want to mention it, Mr. Hatch referred to the recovery of the uranium. Uranium is quite in demand at the present time and we wonder whether you could not materially improve your position in this scheme by installing some equipment which would allow you to recover uranium concentrates containing, say, ten to twenty per cent U_3O_8." [803]

Q. U_3O_8 refers to uranium oxide, does it not?

A. That is right.

Mr. Archer: "This would do away with any disadvantage between you and Durango on that score. From your letter of January 9th, Sunday, it appears that Mr. Gustafson——"

Q. Now, who is Mr. Gustafson?

(Testimony of Frank Nisley.)

Mr. Alioto: What is the date of the letter, Mr. Archer?

Mr. Archer: January 13th, 1944.

A. Well, I can't recall. I believe that he was connected with Metals Reserve, but I am not positive of that.

Mr. Archer: I think that is right.

"From your letter of January 9th, Sunday, it appears that Mr. Gustafson first offered you two per cent ore from the stockpile at 32 cents, whereas you wanted to pay 26 cents for that grade. You say that later on Metals Reserve even increased the price from a 1.8 per cent ore at 32 cents.

"According to what Mr. Hatch said, it will be rather difficult to get Metals Reserve to agree to a price below 32 cents. We therefore wired you that it may be advisable to pay that price for a two per cent ore if at all possible, our idea being that you only buy a quantity sufficient for one month's [804] operation, so that even if the profit margin is very slim, you could maintain your organization and tide it over to the time when Metals Reserve retires from the market.

"Mr. Hatch mentioned confidentially that Metals Reserve will soon stop their buying operations. Prices will then automatically go back to normal, which should allow you to operate with a profit. This is also the reason why we recommended that you do not insist upon Metals Reserve giving you an option on the entire stockpile.

"If prices really decrease it may be easier for

(Testimony of Frank Nisley.)

you to negotiate with Metals Reserve in a few weeks time, if you have no option at a set price. It may then be possible for you to buy your monthly requirements on the basis of the price in the open market.

"We would appreciate your informing us what you are going to do so that if you so desire, we can obtain additional information for you through Mr. Pleasants, or try to hasten a decision in Washington.

"Unfortunately Mr. Pleasants had already left for Washington when your letter of January 9th arrived, so that he could not make use of your recommendation to Senator Johnson. We now hope to hear from you.

"Very truly yours,

"The Continental Ore Company, Henry J. Leir."

Q. Now, Mr. Pleasants, I believe you referred to in your testimony yesterday in regard to an account with him, that he was a lawyer that you and Continental Ore used to negotiate for this stockpile and other matters, isn't that correct?

A. That is correct.

Q. I now show you a copy of Mr. Leir's letter of January 9th, 1944 to you referring to the recent correspondence and wires on this subject, and ask you whether you can identify it.

Mr. Alioto: You do not have to identify it, Mr. Archer. We stipulate to its authenticity.

Mr. Archer: As Defendant's Exhibit next in order, I offer a letter dated January 9th, 1944,

(Testimony of Frank Nisley.)

from Mr. Leir to Frank J. Nisley, to which is attached a copy of the letter dated January 8th, 1944, from Mr. Pleasants to Continental Ore.

Mr. Alioto: We have no objection.

(The documents referred to were thereupon received in evidence and marked Defendant Union's Exhibit No. 3-E.)

Mr. Archer: This is a letter from Mr. Leir to Frank Nisley, your Honor, dated January 9th, 1944. This was still in the period when you were negotiating for the stockpile, is that not correct, Mr. Nisley?

The Witness: Yes, during the period, yes, sir.

Mr. Archer: (Reading) [806]

"Dear Mr. Nisley: Re Vanadium

"We refer to our recent correspondence and your wires. Mr. Pleasants went to Washington again on Monday, January 17th. Enclosed find original of his report, which unfortunately does not leave much hope of accomplishing anything through Senator Johnson or the W.P.B. It seems to us that your aim should be to have your 1943 toll agreement extended at least until M.R.C. stops buying ore at the subsidized price or preferably thirty to sixty days beyond that date. Please keep us informed.

"Very truly yours, Continental Ore Company, Henry J. Leir."

The enclosed letter is dated January 8th, 1944 from Mr. Pleasants to Continental Ore Company.

"Gentlemen:

"I refer further to the Nisley and Wilson matter. Hatch's position——"

(Testimony of Frank Nisley.)

Q. Hatch is the one from the War Production Board, is that not correct?

A. That is correct.

Mr. Archer: "Hatch's position is that the administration of the program on vanadium is entirely up to the Metals Reserve Company, and inasmuch as the W.P.B. is no longer interested in accumulating [807] a further stockpile of vanadium, the W.P.B. cannot authorize the production of any excessively priced vanadium. Hatch is not very friendly as he feels that it is merely an ordinary war loss which is being sustained by Nisley and Wilson due to the shift in war requirements.

"Senator Johnson was not at all helpful. He is very definitely opposed to any reduction in the price of ore to miners. He apparently did make an effort to procure a more favorable concession from M.R.C. on the stockpile material. He was entirely unsuccessful in doing this, as M.R.C. stood pat. I do not believe that they can anticipate any assistance from this quarter at all."

Q. In January 1944 you found out that you would not be able to buy the stockpile at your price, didn't you, Mr. Nisley?

A. The objection that we were referring to in relation to buying the stockpile was that United States Vanadium as agents for Metals Reserve had told them that our tailings would have to be transferred to Durango to be milled, and that was the reason—one of the reasons given for this ore price

(Testimony of Frank Nisley.)

to us. The United States Vanadium at that time were also agents for the Government, for the Army in the uranium program. They were operating a mill at Uravan, which was a much closer location to us, and this bears out the fact that we were complaining [808] because United States Vanadium, instead of giving us the chance of turning these tailings to Uravan, was requiring that they had to go to Durango, which was an excessive cost, which raised the cost of this ore to us, and Metals Reserve didn't know the difference. Some of this correspondence bears that out.

Q. At Durango they were processing not only your vanadium, but uranium?

A. They were also processing at Uravan for vanadium and uranium, both.

Q. Mr. Nisley, my question was: You found out in January, 1944, by this correspondence here, that Metals Reserve would not sell you the stockpile, didn't you?

A. That was the end result. We didn't get the stockpile.

Q. Mr. Nisley, the telegrams and the correspondence which I read to you yesterday offering the 300,000 pounds of vanadium was in March and April of 1944, were they not?

A. I believe that is correct.

Q. I understand from the Clerk that these exhibits are not available, but I will show you the copy——

(Testimony of Frank Nisley.)

Mr. Alioto: I will stipulate with you on that. What do you want to stipulate to?

Mr. Archer: That the telegram referring to the 300,000 pounds of uranium at the rate of 600 pounds per day is dated April 4th, 1944.

Mr. Alioto: Okay, we will stipulate to that. [809]

The Court: Well, now, at that time did you know that you would not be able to buy the stockpile?

A. At what time, your Honor?

Q. In April, 1944, when you made the offer to Continental Ore Company.

A. Your Honor, I believe that negotiations were opened up again for the possible purchase of the stockpile, but by that time our plant had been closed for some three or four months. We had lost our key men and we were in a different position than we were at the beginning of January when we were first negotiating for the pile.

Q. (By Mr. Archer): It is true, however, that Mr. Gardner had kept on the chemist which you had used in your plant after March of 1944, had he not? A. That is correct.

Q. It is also true that Mr. Gardner's offer to lease the plant to the Continental Ore Company at three cents per pound produced was in July 1944, was it not?

A. Well, I joined the service prior to that time, so I can't testify to what happened after I left.

Q. It is also true that in Mr. Gardner's letter of July 14th, 1944, to Continental Ore Company,

(Testimony of Frank Nisley.)

he states, "The Metals Reserve's stockpile is untouched as yet, and considerable number of the miners are still in the district awaiting a place to sell the mill ore. If you should see any possible [810] way for us to operate, for new parties to take over our lease or any other arrangement, I would be more than glad to hear from you or Mr. Leir on the subject."

Mr. Alioto: The witness said he wasn't here at this time, if your Honor please. I do not understand how he can be questioned about it.

The Court: Well, if he knew, if he had knowledge of that, he can answer.

Q. (By Mr. Archer): Did you have any knowledge on that?

A. I was in the service at the time.

Q. Mr. Nisley, didn't you testify yesterday that the Army bought the stockpile at Gateway after July of 1944?

A. I was told that, yes.

Q. You did not know that of your own knowledge, did you? A. I was told that.

Q. So you didn't know it of your own knowledge?

Mr. Alioto: He was told it.

Further Redirect Examination

Q. (By Mr. Alioto): Just one question, Mr. Nisley: Did you ever take up Mr. Leir's suggestion of trying to get a month to month arrangement

(Testimony of Frank Nisley.)

with the Army so that you would be in tune with the market price whenever it developed?

A. As I recall, we did, but we were unsuccessful. [811]

Mr. Alioto: Thank you. That is all.

Mr. Archer: No further questions.

(Witness excused.)

Mr. Alioto: At this time, if your Honor please, before calling Mr. Wolf to the stand, we offer as against the Electro Metallurgical Company a certain request for material from the Continental Ore Company in connection with its Apex contract. This is the letter dated June 14th, 1941, from Continental Ore to the defendant Electro Metallurgical Company, and a letter dated June 16th, 1941, from Continental Ore to Electro Metallurgical Company, and a reply of Electro Metallurgical Company dated July 31st, 1941.

Mr. Archer: Could I see them?

Mr. Alioto: Yes. We will offer them in evidence as plaintiffs' exhibit next in order. And we offer at this time a document previously marked as Plaintiffs' Exhibit 63 for identification, being an exchange of correspondence between the Apex Smelting Company and the Vanadium Corporation of America, dated March 11, 1940; April 8, 1940; April 20, 1940; and an inter-office memorandum from Mr. P. J. Gibbons to Mr. J. P. Gertler of Vanadium Corporation of America, dated February 14th, 1947.

Mr. Archer: I have no objection to the June 16th and July 31st. The only question I have on the June 14th—we do not have a copy of the original of this in our files. [812] If it was sent, I have no objection to it.

Mr. Alioto: It was sent. It was sent from our office. I understand counsel does not object. We offer the Electro Metallurgical letters in evidence.

The Court: It will be admitted.

(The documents referred to were thereupon received in evidence and marked Plaintiffs' Exhibit 77.)

Mr. Alioto: They are very short requests, if your Honor please, which I would like to read to the Jury, and then I shall call Mr. Wolf.

Under date of June 14th, 1941, Mr. Henry J. Leir, President of Continental Ore Corporation, writes to Mr. C. G. Roser of the Electro Metallurgical Company, 30 East 42nd Street, New York City:

"Dear Mr. Roser:

"Re: Vanadic Acid.

"Please let us have your offer of the above material for shipment to the Apex Smelting Company of Chicago."

On June 16, 1941, two days later, another letter to Mr. F. P. Gormely, General Manager of Electro Metallurgical Company, 30 East 42nd Street, New York City:

"Gentlemen:

"As you know, the Apex Smelting Company of

Chicago has been in the aluminum smelting [813] business for more than 20 years.

"Last year they entered into the production of certain ferro alloys by the alumino-thermic process, and have created good facilities for this particular manufacture which, if necessary, could be easily enlarged.

"Would you be interested in 'farming out' a certain quantity of vanadic acid, and allow us to convert it for your account into low carbon ferro vanadium?

"We shall be awaiting the pleasure of your reply to the above suggestion, and hold ourselves at your disposal for any personal discussion you might like to have on this subject."

The answer by Mr. Gormely, Vice-President and General Manager of Electro Metallurgical Company, under date of July 31st, 1941 is as follows:

"Mr. Henry J. Leir, President, Continental Ore Corporation, 500 Fifth Avenue, New York City.

"Dear Sir:

"Please pardon the delay in replying to your letter of June 16, asking if we would be interested in having you convert a certain quantity of vanadic acid for our account into low carbon ferro vanadium.

"I have reviewed this matter several times with [814] my associates and find that we are at the moment able to smelt all the vanadic acid which we have available. Should this situation change we will be glad to get in touch with you but see no

prospects at the moment that we would be interested in your proposal."

Mr. Holland: Mr. Alioto, these are two totally unrelated transactions. [814-A]

Mr. Alioto: We will offer them separately.

Mr. Holland: You are offering them?

Mr. Alioto: We will be very happy to, Mr. Holland.

We first offer the 1940 correspondence between Apex and Vanadium Corporation of America.

I understand there is no objection to that, Mr. Holland?

Mr. Holland: No objection.

The Clerk: Plaintiff's Exhibit 63 admitted in evidence—heretofore marked for identification, admitted and filed in evidence.

(Whereupon, Plaintiff's Exhibit 63 for identification was received in evidence.)

Mr. Alioto: We will offer separately letter dated February 14, 1947.

Mr. Holland: What is the date of that?

Mr. Alioto: February 14 of 1947. It is interoffice memorandum from Mr. Gibbons of the Vanadium Corporation of America.

Mr. Holland: Would you have any objection to offering the entire correspondence on that subject at the same time?

Mr. Alioto: I have no objection at all, Mr. Holland.

Would you be good enough to show me what you deem the entire correspondence?

(Discussion between counsel.) [815]

Mr. Alioto: We have no objection to submitting the entire correspondence.

The Clerk: Plaintiff's Exhibit 78 admitted and filed in evidence.

(Whereupon, inter-office memorandum dated 2/14/47, P. J. Gibbons to J. B. Girdler; letter dated 2/24/47, Girdler to Continental Ore Company; letter of Continental Ore Company by J. A. Mirel to Vanadium Corporation of America; letter dated March 13, 1947, Girdler to Continental Ore Company, was received in evidence and marked Plaintiff's Exhibit 78.)

Mr. Alioto: The first letter is dated March 11, 1940. It is from the Apex Smelting Company, by Mr. Al Lippa, to the Vanadium Corporation of America at 490 Lexington Avenue, New York, New York.

"Gentlemen:

"Please be good enough to let us have your very best price on quantity lots of vanadium pentoxide crushed to one-quarter inch and under. We desire this material for domestic consumption.

"Your immediate response will be very much appreciated."

That's March 11th, and on April 8, 1940, Mr. Lippa again writes to them and says:

"Vanadium Corporation of America
490 Lexington Avenue
New York, New York [816]

"Gentlemen:

"We enclose a copy of letter written to you on March 11, to which we do not seem to have received a reply.

"This, no doubt, has been overlooked, and we would appreciate hearing from you."

April 20, 1940, Mr. Gustav Laub, Assistant Vice-President, Vanadium Corporation of America, replies:

"Apex Smelting Company
Chicago, Illinois
Attention: Mr. L. Lippa

"Gentlemen:

"In response to your letter of April 8, enclosing copy of your letter of March 11th which apparently went astray, we would advise that our position is such that we have no material to offer you at present."

That's dated April 20, 1940.

(The above letters read from Plaintiff's Exhibit 63 in evidence.)

Mr. Alioto: February 14, 1947—this is in the postwar period—Mr. Gibbons on February 14, in an inter-office memorandum to Mr. Girdler, writes as follows, on the subject "Continental Ore Company Inquiry," to J. P. Girdler.

"With reference to letter from the Continental [817] Ore Company dated February 11, 1947, in

which they advise they would be interested in one minimum carload per month of vanadium pentoxide for delivery, commencing with April and through July, 1947, after study of existing commitments for this commodity and the sales estimates supplied to me by the sales department covering the current year, we find our entire production capacity will be taken up for the year 1947.

"However, it is possible that we may be able to supply a car during the period mentioned if we were called upon for it, but at this time we could not guarantee even that amount."

That is the inter-office correspondence.

Then the letter that goes from Girdler to Continental Ore Company on February 24, ten days later:

"Continental Ore Company

"Gentlemen:

"With reference to your letter of February 11, 1947, with respect to contracting for one carload per month of black vanadium oxide, fused, beginning in April and through July, 1947, i.e., four carloads, after reviewing our existing commitments for this commodity and estimated sales, we believe that we will be able to take care of these four carloads if [818] delivery is extended over a six months' period beginning with April, 1947.

"Our present contract price for fused black vanadium oxide is $1.10 per pound contained V_2O_5, f.o.b. Seller's Works, Bridgeville, Pennsylvania, with freight charges allowed to destination, unless such freight charges are in excess of the rate to

St. Louis, Missouri. In such case, free charges to St. Louis will be allowed.

"The above price will be in effect until March 31, 1947 and thereafter for each calendar quarter-year unless revised in writing by us at least 15 days prior to such quarter-year.

"This offer, which is subject to our usual contract terms, is subject to acceptance by execution of our formal contract on or before March 15, 1947, so would ask that you advise us promptly whether or not you are interested in having us submit our contract to cover the tonnage above-mentioned."

On March 7, 1947, Mr. Mirel of the Continental Ore Company—J. A. Mirel—replies to the Vanadium Corporation of America:

"Gentlemen:

"Receipt is acknowledged of your letter dated February 24 in which you submit us your proposal for four carloads of black vanadium oxide at the contract [819] price of $1.10 per pound contained V_2O_5, f.o.b., your works, Bridgeville, Pennsylvania, with freight charges allowed to destination, unless such freight charges are in excess of the rate to St. Louis, Missouri. In such case, freight charges to St. Louis will be allowed.

"We have submitted our proposal to our buyers and have been informed that our price is out of line with current market offerings. From what we have been able to ascertain in our subsequent discussions, the oxide would have to be made available to us around $1.00 to $1.05 in order to permit

doing the business. We would thank you to give consideration to a revision in your price to conform with the price indicated above, as we believe prospects appear favorable for doing the business at our indicated figure."

Mr. Alioto: And actually, Mr. Holland, there was another letter saying they wouldn't reduce the price, that's correct, is it not?

Well, we will have it at a later point.

Mr. Holland: Yes, here it is. You may have that (handing to counsel).

Mr. Alioto: No objection to having that admitted as an exhibit? [820]

Mr. Holland: Wait a minute, that's the wrong one.

Mr. Alioto: No, this isn't it.

Mr. Holland: That's it (handing to counsel).

Mr. Alioto: The final document, which we ask be physically attached to this, if your Honor please, is Mr. Girdler's letter to Mr. Mirel:

"With reference to your letter of March 7, relative to our offer to sell black vanadium oxide fused, we regret that you are not interested in our proposal for the sale of this material at $1.10 per pound contained V_2O_5, as quoted in our letter of February 24.

"We are not prepared at this time to consider making a reduction in our current price.

"Very truly yours,

"John B. Girdler,

"Assistant General Manager of Sales."

Mr. Wolf, would you be good enough to take the stand.

MARTIN WOLF

called as a witness on behalf of the plaintiff herein, being first duly sworn, was examined and testified as follows:

The Clerk: State your full name, your occupation and your address to the Court and jury.

A. Martin Wolf. I reside at 300 Central Park West, New York City. [821]

Direct Examination

Q. (By Mr. Alioto): Mr. Wolf, what is your present business or occupation?

A. I am Vice-President of the Continental Ore Corporation.

Q. Vice-President. For how long a period of time have you been the Vice-President of the Continental Ore Corporation?

A. About 20 years.

Q. What do your duties involve in connection with the Vice-Presidency of the Continental Ore Corporation?

A. The selling, the buying, shipping and selling of all the materials that we handle.

Q. What is the nature of the materials that the Continental Ore Corporation handles?

A. Ores, minerals and alloys.

Q. Would you be good enough to designate some of them, for the record, please?

A. Well, there is iron ore, pig iron, manganese ore, ferro-manganese, chrome ore, ferro-chrome, tungsten ores, ferro-tungsten. That's about it.

(Testimony of Martin Wolf.)

Q. You handle——

A. Those are the main ones. Fluorspar and all grades, actually.

Q. Now, what is the source of these materials, the iron ore, the manganese ore, the ferro-manganese, the ferro-chrome, the ferro-tungsten, and these various ores—just state them, generally?

A. Well, generally, they are both domestic and foreign materials.

Q. Would you be good enough to tell us about the general classification of customers that buy these ores, alloys and minerals from you?

A. They are mainly the steel companies.

Q. Would you be good enough to name the steel company customers of these ores, minerals, and alloys?

A. Well, it's actually the list of the American steel industry. It starts with U. S. Steel, Bethlehem Steel, Republic, Inland Steel, Jones & Laughlin, Weirton, Wheeling, Detroit Steel, Ford Motor, Columbia-Geneva, Sheffield Steel in Houston, Midland—it's the list of the steel industry, in fact.

Q. I think we have a pretty fair notion of the other things you have mentioned, but will you tell us what fluorspar is?

A. Fluorspar is a mineral that is used in the steel industry as a flux to eliminate the impurities in the steel.

Q. These samples I'm holding in my hand, are these samples of fluorspar? A. That's right.

(Testimony of Martin Wolf.)

Q. Would you be good enough to tell us where fluorspar is mined?

A. Fluorspar is mined in the western states, the southwestern states of the United States, in Mexico, Spain, Italy, Germany, other places. [823]

Q. What are the western states of the United States where fluorspar is mined?

Mr. Holland: May it please the Court, the evidence seems to be entirely on products other than vanadium. May I ask Mr. Alioto what the purpose is?

Mr. Alioto: We will get down to the purpose. We will get down to vanadium in just a moment. I want to develop——

The Court: Answer the question. Go ahead.

Mr. Alioto: What are the states where fluorspar is mined?

A. Colorado, Wyoming, Nevada, Utah, New Mexico, Arizona, Texas, Illinois and Kentucky.

Q. As far as the first five are concerned, are they substantially the same states as where vanadium ore is mined? A. That's right.

Q. Mr. Wolf, I want to inquire about your personal experience in the industry of ores, alloys and minerals. Would you be good enough to tell us when you first secured your employment, any employment, in that industry?

A. That was in 1930.

Q. How old were you at the time?

A. In 1930 I was 18.

Q. How old are you now?

(Testimony of Martin Wolf.)

A. I am 45.

Q. Where did you secure this employment?

A. Well, I started my apprenticeship in the firm my father was with, an ores and mineral firm in Germany, in Frankfurt, Germany.

Q. What was the nature of the business carried on by that firm?

A. Ores, minerals and metals.

Q. And what was the nature of the duties that you personally performed in connection with the activities of that firm?

A. Well, I learned how to buy, sell, ship and insure ores and minerals.

Q. Now, then, how long did you remain with that firm?

A. I remained with that firm in Germany until 1933, when Hitler came to power.

Q. Then what did you do?

A. Then I asked for a transfer to one of the foreign offices of the same firm, and I was transferred to France and then to Holland.

Q. With the same company?

A. Same company.

Q. What did you do in France and Holland for that same company?

A. Exactly the same thing.

Q. Then what was the next employment you had in this industry?

A. In 1937, I met Mr. Leir who was operating in Luxembourg, and I joined him. [825]

(Testimony of Martin Wolf.)

Q. What was the name of the company under which Mr. Leir operated in Luxembourg?

A. It was the S. A. des Minerais (spelling).

Q. What does S. A. stand for?

A. That means incorporated.

Q. And des Minerais, what does that title mean?

A. Corporation of minerals.

Q. Minerals? A. Yes.

Q. What were the duties that you actually discharged in your employment with the S. A. des Minerais in Luxembourg?

A. Well, at that time we had three main businesses, fluorspar, refractories and ferro alloys.

Q. What were the ferro alloys in which you dealt?

A. Ferro-tungsten, ferro-vanadium and ferro-titanium.

Q. What were the refractories in which you dealt?

A. Manganosite and manganosite bricks.

Q. Maybe you better tell us what refractory means, and I include myself in that.

A. We use refractories for furnace linings in the metal and steel industry to prevent the liquid metal charge from breaking out of the furnace. It's like an oven, a brick oven. They are more heat-resistant bricks than ordinary bricks.

Q. Now, so far as your ferro-vanadium was concerned, that [826] business in ferro-vanadium, did you have contracts for the production of ferro-vanadium at that time?

(Testimony of Martin Wolf.)

A. That's right. We had a joint venture contract with a large French company who had their own hydraulic electric power station in the French Alps and were equipped to produce ferro alloys.

Q. What was the name of that French company?

A. It was Fredet Kuhlmann (spelling).

Q. Is that hyphenated? A. I don't know.

Q. What was the nature of the business that you carried on in connection with ferro alloys, specifically, and even more specifically with ferro-vanadium?

A. We had a contract with the—they were actually doing the producing and we would procure the raw materials and would handle the sales, and the financing was done fifty-fifty.

Q. Do you recall what the source of your raw materials was?

A. We usually — for instance, it was South America, South Africa, Portugal, Burma—that was about it.

Q. Did you and Mr. Leir carry on the duties of procuring those raw materials for the French manufacturer? A. Interchangeably.

Q. All right. How long did you remain with the S. A. des Minerais as an associate of Mr. Leir?

A. Well, practically, it ended only when the war started. [827] I happened to be in France at the time, at the plant where we produced these ferro alloys, so I did not go back to Luxembourg, of course.

(Testimony of Martin Wolf.)

Q. You date the war as of September of 1939?

A. September, 1939.

Q. Then what did you do?

A. Well, I stayed at the plant to—we had to organize on a war footing, and after that was done I volunteered for the French Army.

Q. And you served in the French Army?

A. That's right.

Q. Until the fall of France?

A. Until June, 1940, when the army was more or less disbanded.

Q. Then what did you do; what experience did you have after that?

A. Well, I didn't have any experience; I caught the last ship to North Africa.

Q. And after that, sir?

A. After that I tried desperately to get out of North Africa and finally succeeded to get to Portugal on a fishing boat, and once in Portugal Mr. Leir got me out of there and I came here.

Q. Mr. Leir got you out of Portugal to come to America? A. That's right.

Q. When did you arrive here? [828]

A. In September, '40.

Q. Now, when did you actually go to work for the Continental Ore Company, in America, that is?

A. Well, let me put it this way. I had a transient visa only, and I wanted to regularize my position. So, after a few months here, I went to Cuba to wait for the issuance of an immigration visa.

(Testimony of Martin Wolf.)

Q. Was that immigration visa issued to you by the United States Government?

A. Yes, it was, the day after Pearl Harbor.

Q. When did you make your regular—when did you make your permanent entry, as it is sometimes called, into the United States?

A. The next ship was somewhere around December 16 of 1941, and I arrived here around December 22-23, 1941.

Q. When did you go to work for the Continental Ore Company? A. On January 2, 1942.

Q. Then what position did you occupy with the Continental Ore Company, beginning January of 1942? A. Call it general factotum.

Q. General factotum. What did you do, specifically?

A. Well, it was the same kind of occupation as I had before, trying to buy and sell materials, which were in our line.

Q. Now at that time, at the time you started working for the Continental Ore Company, it had some kind of a joint [829] operating arrangement with the Apex Smelting Company of Chicago, did it not? A. That is correct.

Mr. Alioto: Does your Honor want to take a recess at this time?

(Short recess taken.) [829-A]

Q. (By Mr. Alioto): At the recess, Mr. Wolf, we were speaking of the joint arrangement between the Continental Ore Company and the Apex Smelting Company. After you became employed

(Testimony of Martin Wolf.)

with the Continental Ore Company, did you visit the plant of the Apex Smelting Company?

A. Yes, several times.

Q. And, of course, you had been in the French plant, had you not, prior to that time?

A. Yes.

Q. You helped to get ready, in connection with this war situation, you testified? A. Right.

Q. Will you generally describe the manner or the method of manufacture at the Apex plant? Just tell us what you saw and what was being done there.

A. Well, the raw material, the vanadic oxide was, if necessary, put through a crusher and then was blended with the other ingredients, mainly aluminum shot—that means small pieces of aluminum --and then put into a crucible to be ignited then with a small charge of magnesium. The crucible was a very crude instrument, actually. It consisted of half rings of refractory material which were stacked on top of each other to form a pot, and the materials with the aluminum, as I said, were put in, and then, since magnesium ignites easier than aluminum, the little charge of magnesium [830] was ignited, and because of the heat that was generated, the aluminum throughout the charge started to ignite and cause the smelting of the entire charge. Then the slag and the alloy were drawn off separately from the crucible and then suitably crushed.

Q. Was this a method that the French firm had

(Testimony of Martin Wolf.)

employed in connection with your joint arrangement there?

A. Yes, except that the French plant also used electric furnaces. They used both methods, the aluminum thermic and the electro smelting.

Q. How did the product of the Apex method compare with the product of the French method or the French manufacture?

A. The quality?

Q. Yes.

A. Well, it was the same quality. It was made according to the same recipe, I should say.

Q. At the time you were at Apex, how many other manufacturers of vanadium were there in the country?

A. Two, Union Carbide and Vanadium Corporation of America.

Q. The two defendants here were the only other ones? A. That is right.

Q. Do you know from your experience in the industry what the vanadium content of the ferro-vanadium manufactured by the defendants was?

A. Yes, it was in the neighborhood of 45 to 55 per cent of metallic vanadium in alloy. [831]

Q. In the European manufacture, what was the vanadium content of the ferro-vanadium manufactured under your joint arrangement with Freddie Coleman?

A. Seventy to eighty percent.

Q. What was the vanadium content used in the Apex process? A. Seventy to eighty.

(Testimony of Martin Wolf.)

Q. In other words, you used the European formula? A. That is right.

Q. Incidentally, do you know what the vanadium content of the defendants' is today?

A. Well, they copied ours.

Q. Is it seventy to eighty now?

A. That is right.

Q. It has been for some time?

A. Yes, a number of years.

Q. What are the relative advantages of a ferro-vanadium with a 70 to 80 content as against a ferro-vanadium with a 45 to 55 content or a 35 to 50 content?

A. Well, that is actually our sales talk.

The Court: I can't hear you.

The Witness: That is actually what we show the customers to be the advantage.

Q. (By Mr. Alioto): Will you tell us what those advantages are? [832] Just state the facts with respect to those advantages.

A. The advantage was mainly that our ferro-vanadium content, with the same impurities quantity-wise as the ferro-vanadium made by our competitors which was much lower in grade, or rather, lower in vanadium, so that if you had, let us say, 10% impurities in theirs and in ours, since you only used half of ours to achieve the same result, you only added half of the impurities. That was the big advantage.

Then there were incidental advantages, such as you have to handle half of the material only and

(Testimony of Martin Wolf.)

you save freight, you save storage, and you generally have a purer material.

Q. About how long a period of time, if you recall, had the 70 to 80 V contained material been used in Europe?

A. I think there again we started it but I can't remember too sure on that.

Q. Do you know how long the American companies, these defendants, have been manufacturing vanadium of that higher content, ferro-vanadium of that higher content, just approximately?

A. It is a guess; probably eight or ten years.

The Court: When?

The Witness: About eight or ten years, I would guess that they have been making it.

The Court: Just a moment. How is that material? [833] This suit was filed in 1948, wasn't it?

Mr. Alioto: The suit was filed in July of 1949, if your Honor please.

The Court: I don't see how anything occurred since then would be material.

Mr. Alioto: Except to show that there was nothing wrong with the ferro-vanadium that they made. If it has been copied since, that would indicate it was pretty good ferro-vanadium.

Q. In any event, Mr. Wolf, your basic job in 1942 was to sell the Apex production, was it not?

A. One of them.

Q. Who were the customers that you approached in connection with the sale of the ferro-vanadium produced by Apex?

(Testimony of Martin Wolf.)

A. The users of ferro-alloys, which is the steel industry.

Q. I show you, Mr. Wolf, a copy of a document that has previously been supplied to counsel and ask you if you will be good enough to look at it, sir, then state whether or not that is a document reflecting the sales of ferro-vanadium and other vanadium products by date, quantity, quality, price and customer.

A. Yes, it is.

Q. And these were sales by the Continental Ore Company or the Apex Smelting Company?

A. That is right.

Mr. Alioto: We will offer that in evidence, if [834] your Honor please, as plaintiff's exhibit next in order.

Mr. Archer: Your Honor, may I ask a question on voir dire?

Q. Mr. Wolf, did you prepare this exhibit?

A. No.

Q. Do you know who prepared it?

A. Someone in the Continental Ore Company.

Q. Do you know that it is correct?

A. I am sure it must be correct because it must be taken from their books.

Q. So it is all your sales?

A. I beg your pardon?

Q. It is all your sales?

A. I don't know. I can't tell you that. I don't know what the period is exactly.

(Testimony of Martin Wolf.)

Q. I mean of your vanadium sales. Does that have all the vanadium sales?

Mr. Alioto: It is the sales up to a certain period of time, 1944.

Q. (By Mr. Archer): Does it have all the sales up to 1944?

Mr. Alioto: We are going to have a fuller documentation by the controller of the company on all of the sales, but then this reveals the customers and the dates of sales. That is the thing I am offering it for at this point. [835]

The Court: What are the dates included in this?

Mr. Alioto: The dates included in this compilation are 1940 to 1944.

Mr. Archer: My only question is whether this is supposed to be all the sales during that period of time or not.

Mr. Alioto: We are going to have, as I say, a fuller documentation. I do not know whether every single sale is included, if your Honor please. It is not offered for that. It is offered to show the dates on which specific sales were made, the customers to whom sold, and the prices at which sold.

Mr. Archer: I have no objection.

Mr. Alioto: We will offer it in evidence. We will have another statement on all the sales when the controller takes the stand or Mr. Leir takes the stand.

(The document referred to was thereupon received in evidence as Plaintiff's Exhibit 79.)

[See Book of Exhibits.]

(Testimony of Martin Wolf.)

Mr. Alioto: I just want generally to point out the nature of this document to the jury.

The Court: Just state what it covers.

Mr. Alioto: Yes. This covers the date of the sale, the quantity of the sale, the material, whether it is vanadic acid or ferro-vanadium. It covers the price of the sale, the amount of the sale and the customer involved. The customers are Allegheny Ludlum Steel Corporation, the Braeburn Alloy Steel Corporation—— [836]

Q. Will you identify that company?

A. They are tool steel makers.

Q. Where is Braeburn located?

A. Braeburn, Pennsylvania. It isn't too far away from Pittsburgh.

Q. There is Henry Disston & Sons, Incorporated.

A. They are near Philadelphia. They make saws and files.

Q. The Jessop Steel Company.

A. They make special steels.

Q. Latrobe Steel Company.

A. Tool steel near Pittsburgh.

Q. Allegheny Ludlum we have already mentioned. The Omaha Steel Works?

A. They are not in existence anymore.

Q. Republic Steel Corporation.

A. They make all kinds of steels, the third largest producer in the state.

Q. Simonds Saw and Steel Company. Do you identify that company? A. Yes.

(Testimony of Martin Wolf.)

Q. Where is it located? What is the nature of its business?

A. They make tools, small tools, workshop tools.

Q. Universal Cyclops Steel Corporation and Valley Steel Casting Company, Vulcan Crucible Steel Company. [837]

A. Pittsburgh, all around Pittsburgh.

Q. Mechanized Corporation, Acron Casting Company and Atlas Steels. Will you tell us where Atlas Steels is located?

A. Welland, Ontario, Canada.

Mr. Alioto: We will have reference to this document at a later stage, if your Honor please.

Q. Now, then, we had some testimony here, Mr. Wolf, in this courtroom about allocation systems that were in effect in 1941, 1942 and 1943. Would you just state the fact as to how those allocation systems worked in connection with customers such as these, for example?

A. Well, the customers had to get permission from the authorities after they had put in an order to receive the material. It is about the same as we had to receive permission to get our raw materials into Apex or into our Long Island shop. The system worked so that the user had to apply and show the necessity for his receiving the material, but the first thing was that the orders were placed first on a commercial basis and then the authorities would approve or disapprove shipment.

Q. How, mechanically, did that affect your busi-

(Testimony of Martin Wolf.)

ness about going out and soliciting customers, whether new or old? A. It did not.

Q. You simply went out and offered your materials?

A. If the customer did something that was considered [838] essential by the authorities, he would get the allocation.

Q. So far as you were concerned, you made no applications to sell ferro-vanadium, did you?

Mr. Archer: I object to the question as leading.

The Court: It is leading and suggestive.

Mr. Alioto: Just tell us the effect of this allocation system. State the facts so far as going out and getting customers.

A. I went out and sold these materials and it was up to the customers, then, to apply to the authorities to get permission to receive the materials. It did not in any way hinder us from making sales.

The Court: Just a moment. Let me understand that. You were not in the manufacturing business, were you?

The Witness: Yes, we were the agents for a manufacturer.

The Court: Were you acting in the nature of a broker or sales agent?

The Witness: We were also participants in the production and Apex. We had not only an arrangement whereby the profit was to be split between the French associates and ourselves, but we also had supplied Apex with the basic knowledge ac-

(Testimony of Martin Wolf.)

cording to which they produced. They were never in the business before.

The Court: You participated, then, in the manufacture? [839]

A. I would say yes.

Q. (By Mr. Alioto): Did you develop a customer in Canada known as the Atlas Steels Company?

A. Yes, we did.

Q. Did you personally contact that company over the period of years? A. Yes.

Q. When you were contacting these companies, did you sell them just vanadium alone?

A. No, we sold them, or we tried to sell them, whatever other materials we had to offer at the time, mainly fluorspar. To this particular customer we sold both vanadium and fluorspar.

Mr. Alioto: Before going into the Atlas Steel story, I would like to read to the jury the type of customer this was.

The Court: Well, it was a customer in Canada.

Mr. Alioto: Yes, if your Honor please. I am not sure how substantial a customer it was.

Mr. Archer: Your Honor, I object to this. I filed a memorandum on it and I believe the Canadian situation should not be a part of this lawsuit.

Mr. Alioto: We will come to that in a moment. Just let me read these accounts and I will show to you the Canadian situation concerned meetings in New York City, not Canada. [840]

The Court: Now, just a moment. On this Canadian proposition I think that might be discussed

(Testimony of Martin Wolf.)

outside the presence of the jury. You are offering evidence now——

Mr. Alioto: Just that we had the customers, that is all.

The Court: He had a customer up there?

Mr. Alioto: That is all at the moment.

The Court: Go ahead. We will come to that later.

Mr. Alioto: This customer on March 3, 1942, purchased Van-Ex, 2,000 pounds of Van-Ex at $2.40, $4,800.

March 13, 1942, 3,000 pounds of Van-Ex, the price always $2.40, $7,200.

March 27, 1942, $12,000.

April 17, 1942, $12,000.

May 16, 1942, $12,000.

May 21, 1942, $7,000.

June 4, 1942, $6,900.

June 17, 1942, $11,196.

July 3, 1942, $12,804.

July 11, 1942, $10,008.

August 17, 1942, $7,200.

August 23, 1942, $15,876.

September 17, 1942, $5,184.

September 26, 1942, $4,608. [841]

October 12, 1942, $7,200.

November 11, 1942, $5,184.

December 15, 1942, $5,472.

December 17, 1942, $6,336.

January 1, 1943, $576.

May 29, 1944, $3,240.

(Testimony of Martin Wolf.)

Q. Mr. Wolf, did there come a time when you no longer shipped to the Atlas Steel Company?

A. Yes.

Mr. Archer: Your Honor, I would like to renew my objection at this point.

Mr. Alioto: I have not said anything yet, if your Honor please.

The Court: Go ahead.

Q. (By Mr. Alioto): In connection with the matter of the Atlas Steel Company, I show you copy of a letter written to Mr. G. B. Walker of the Electro Metallurgical Company—that is this defendant, if your Honor please, not the Canadian company, this defendant—dated January 19, 1943. I show you this letter and ask you whether you can identify it as a letter sent to Mr. Walker on or about the date which the letter bears.

A. Yes.

Q. Did you help in the composition of that letter? A. Yes. [842]

Mr. Alioto: Are you familiar with the letter, counsel?

Mr. Archer: I will have to look at it.

Mr. Alioto: We are not offering this letter at the moment against Vanadium Corporation of America, only against the Union Carbide group of defendants.

Mr. Archer: Your Honor, I think that this is a matter to which you referred that we should discuss in chambers, and I object to the admission of the letter. The fact that he writes to somebody

(Testimony of Martin Wolf.)

at the Metallurgical Company in the United States does not change the situation as to what was occurring in Canada.

Mr. Alioto: No, but they answered from the United States and there was a conference held in New York in the United States about the matter.

The Court: Where was that held?

Mr. Alioto: Where was that held?

The Court: Where was the order made, in Canada or in the United States?

Mr. Alioto: The order was made in the United States for shipment to Canada.

The Court: Are you contending that the Canadian Government was a party to this?

Mr. Alioto: No, we are not, if your Honor please. We are making no charge that the Canadian Government is a party to anything. Under no circumstances are we making that charge. [843] The parties to this thing are the Electro Metallurgical Company of New York City. That is who the party is.

Mr. Holland: This brings up the matter to which your Honor referred which you said you thought should be discussed in chambers, and I suggest that we do that right now.

Mr. Alioto: We are proceeding to show certain actions by Electro Metallurgical Company and a conversation as to the reason for the action with a representative, not of any Canadian company or the Canadian Government, but a representative of

(Testimony of Martin Wolf.)

the Electro Metallurgical Company in New York, about which there has been abundant evidence.

The Court: Let me see the letter.

(The document referred to was handed to the Court.)

Mr. Alioto: That is the first in a series of correspondence on the matter. [844]

The Court: All right, you introduce it in evidence. Exception allowed.

Mr. Alioto: Thank you, if your Honor please. Ask that it be marked as Plaintiffs' Exhibit next in order.

The Clerk: Plaintiffs' Exhibit 80 admitted and filed in evidence.

(Reporter's Note: Exhibit 80 subsequently in these proceedings stricken from evidence and marked Exhibit 80 for identification.)

(Copy of letter from Henry J. Leir, Continental Ore Company, dated January 19, 1943, to Mr. G. B. Walker, Electro Metallurgical Co., New York City, received in evidence and marked Plaintiffs' Exhibit 80.)

Mr. Alioto: January 19, 1943; this is from Mr. Henry J. Leir, Continental Ore Company, to Mr. G. B. Walker, Electro Metallurgical Company, 30 East 42nd Street, New York City.

"Dear Sir:

"Re: Vanadium for Canada.

"You undoubtedly know that the new allocation system in Canada resulted in our being eliminated from the Canadian market during the month of

(Testimony of Martin Wolf.)

January. (Our customer, Atlas Steels Ltd., requested 4000 lbs. for shipment from us during January which you dropped from the list and replaced by ferro vanadium [845] from your and Vanadium Corporation's production.)

"Atlas Steels Ltd. has now applied for 5000 pounds of vanadium to be received during February and they insist that they want to receive our material.

"Our attorney in Ottawa, Mr. Redmond Code, contacted Mr. Bateman today in order to find out whether these 5000 pounds from Continental Ore Company are included in your list for February.

"Mr. Bateman was unable to give him this information and suggested to Mr. Code that we get in touch with you regarding this matter since your Welland firm is handling this matter under your direction.

"We wish to say that we have these 5000 pounds of V ready for immediate shipment and expect you to let us ship this material to Canada as requested by our customer.

"We will telephone you tomorrow morning in order to learn your reply.

"Thank you for your cooperation.

"Very truly yours, Continental Ore Company, Henry J. Leir."

Mr. Holland: I would like to move to strike that letter. In the letter there is obviously hearsay. It is what the man in Canada told Mr. Code in Canada, who told Mr. Wolf.

(Testimony of Martin Wolf.)

Now, how could that possibly be binding on us, your [846] Honor?

Mr. Alioto: We will develop it, if your Honor please.

The Court: The objection will be sustained. You can't cover the entire earth now on this proposition.

Mr. Alioto: How about New York City, if your Honor please? May we cover that?

The Court: Well, if it is in New York City, yes, but we can't put New York in Canada.

Mr. Alioto: Is your Honor striking this letter (Exhibit 80)?

The Court: The letter will be stricken. Exception allowed. It is not material, and the Jury will not give it consideration.

Mr. Alioto: You mean an attempt in the United States to prevent them from shipping from the United States, if your Honor please, is not material to a Sherman Act violation? I find that difficult to understand.

The Court: How could an individual in the United States control the Government of Canada?

Mr. Alioto: I will show you in just a minute how, Judge, if you will let me.

The Court: No.

Mr. Alioto: I will show you how.

The Court: I am not going to let you do that because Canada is a different nation. Now, I don't care what kind of a rule Canada put into effect; it may have been a very unfair rule; it may have

(Testimony of Martin Wolf.)

been to the disadvantage of this plaintiff. But if it is the rule of Canada, we have no jurisdiction of Canada.

Mr. Alioto: It isn't the rule of Canada, if your Honor please. I want to show it was the rule of this defendant in New York. In other words, it wasn't a statute, a Canadian statute, or a Canadian regulation that we are complaining about. What happened is that the Electro Metallurgical Company——

Mr. Archer: Your Honor, I think this should be in chambers. I think it has gone beyond that right now.

The Court: Very well. The Jury will be excused until 2:00 o'clock.

(Thereupon the Jury withdrew and the following proceedings were outside the presence of the Jury.)

Mr. Alioto: If your Honor please, I want first to indicate what facts will be developed through this witness and through correspondence. I want to emphasize preliminarily that the only correspondence we are going to be talking about is correspondence between this defendant, Electro Metallurgical Company, and this plaintiff, the Continental Ore Company. I am not concerned with any correspondence with Canadian people, Canadian ministers, or anybody else. I am concerned only with correspondence between this plaintiff and these defendants in [848] connection with the taking away of a very valuable customer.

Now, the customer we are speaking of is a customer in Canada, it is true, who receives shipments from the United States, produced in the United States, and shipped out of New York. That is all we are talking about. And I submit that obviously—

The Court: Now, who would control your Canadian company under your theory? Why don't you just go ahead and ship it?

Mr. Alioto: Well, I will explain why in just a moment, if your Honor please. Because the Electro Metallurgical Company of Canada was appointed as an agent by the Canadian Government, under a statute about which no question is being raised, and under an appointment about which no question is being raised, and was appointed as an agent to buy vanadium—that is what the agent was supposed to do.

Now, from there on in that agent moves into the position of a purchasing agent for the Canadian Government. There is no question about that government connection, no question at all about it. That agent has the right to buy vanadium. That agent determines, after conferences with this defendant in New York, and it is controlled by this defendant in New York, that agent, that——

The Court: Now you are assuming that an agent of the Government of Canada is controlled by somebody in the United States.

Mr. Alioto: I am not assuming. I am going to prove it.

The Court: Well, you are not going to be per-

mitted to prove it. Suppose it is wrong; suppose they did try to influence the sale of their goods.

Mr. Alioto: They didn't influence it——

The Court : But it was the act of the Canadian Government.

Mr. Alioto: My point is that they didn't influence it, if your Honor please; they didn't influence—they did it.

In other words, they made the determination——

The Court: I am not going to permit you to go into that because that would say that we controlled the Canadian Government.

Mr. Alioto: No.

The Court: That some individual down here controlled the Canadian Government.

Mr. Alioto: No, it doesn't say that at all, if your Honor please.

Let me invite your Honor's attention to a very recent case. It is the Fifth Circuit. I will get the citation in just a moment. Here was the charge. The charge was that a group of securities dealers went to the District Attorney down in Florida and got the District Attorney to indict another [850] securities dealer. So the District Attorney indicted him. Obviously the private persons couldn't have the indictment, it was the government, the government that indicted the securities dealer. He brought an anti-trust case in which he said that his competitors induced the District Attorney to indict him and ruin his business. Judge Hutchinson of the Fifth Circuit said that that stated a cause of action under the anti-trust laws.

Now, all we are alleging, just as in that case, and there are other cases——

The Court: You are alleging that one of these defendants, one of the agents of the defendants, influenced the representative in the Canadian Government to disregard your client and to permit the sale by someone else.

Mr. Alioto: Except that your Honor is missing one step, I think. That representative of the Canadian Government was the defendant. I don't think—I made that clear.

In other words, the Canadian Government appointed——

The Court: Are you making the agent of the Canadian Government, this Canadian representative, a defendant—is he a defendant in this case?

Mr. Alioto: The representative there was the Metallurgical Sales Corporation of Canada. He was named as a defendant in this case.

The Court: He is a defendant in this case? [851]

Mr. Alioto: That's right.

The Court: Did you have service on him?

Mr. Alioto: No, we didn't serve him.

The Court: Well, then, you will not regard him as a defendant in this case.

Mr. Alioto: Just a minute, if your Honor please. What I want to prove is that when inquiry was made there in Canada, they said: See the man in New York, Electro Metallurgical Company, which is a defendant in this case.

The Court: It doesn't matter what they did, so

long as it was the act of a representative of the Canadian Government.

Mr. Alioto: What about the District Attorney in the Florida case?

The Court: It doesn't matter; I don't care anything about that case.

Mr. Alioto: You don't care anything about that case?

The Court: No.

Mr. Alioto: What about the——

The Court: The Supreme Court doesn't have it yet, has it?

Mr. Alioto: Well, I thought that perhaps your Honor would care less for it if it got to the Supreme Court.

The Court: We still don't know what might happen [852] to it.

But suppose that they did induce the representative up there. The final act was the act of the Canadian Government. Now, we don't have any jurisdiction in Canada and we can't control—we can't say that what the Canadian Government did was right or wrong. We accept it as it is. Certainly I will not permit you to try to prove now that a representative of the Canadian Government was influenced by one of his associates, you might say, in the United States, to do what it did.

Mr. Alioto: By his boss in the United States, to cut off Continental.

Now, here's what I want to prove, if your Honor please. Your Honor is familiar with those lines of cases which say that in carrying out or putting

into operation an illegal plan that it may be that some of the steps in the plan are in themselves legal—in themselves legal.

Now, our basic point is——

The Court: Well, we'll say now that that would be your conspiracy.

Mr. Alioto: Yes.

The Court: But the overt act was committed in Canada.

Mr. Alioto: Oh, no. In New York City, is where the overt act was committed. And the crush on production was in New York City, not up in Canada. The prevention of the shipment [853] was in New York City.

The Court: Well, I am not going to permit you to go into that situation.

Mr. Alioto: Let me state further a further domestic involvement that I think perhaps will appeal to your Honor. When they were directed in Canada to go see the boys at 30 East 42nd Street, which is New York City, which is not under the Canadian Government, as I understand it, they went to them. They wrote them a letter, first of all, and said: We have been referred to you. What's the idea of stopping this shipment?

Then a man named Arrouet calls them up. Mr. Arrouet is a highly placed employee of that company, who spent a good deal of his time in Europe working out their relations with the European cartels. Now, he's a cartelist. He is cartel minded.

So, the upshot of the whole thing is that in June of 1943 this witness (Mr. Wolf) in a meeting in

New York City, which is not under the jurisdiction of the Canadian Government, as I understand it, had a conference with Mr. Arrouet about trying to straighten out this Canadian deal where they had lost this very valuable customer, as your Honor just heard. Your Honor just heard how valuable that customer was.

At this conference Mr. Arrouet tells Mr. Wolf: You people have no business in the vanadium business. You ought [854] to get out of the vanadium business. You have no place in it. And furthermore, if you don't quit fooling around with the Climax Molybdenum Company, we'll take care of them, too.

They were trying to get Climax Molybdenum to manufacture ferro vanadium for them.

Now, it just is incredible to me that that type of evidence can be excluded in a Sherman Act case, Judge.

The Court: Whom did Arrouet represent?

Mr. Alioto: The Electro Metallurgical Company, the principal defendant in this case, the principal defendant in this case, Judge. It is just incredible that you won't let us put that in.

The Court: That's his individual view, that is his opinion about it.

Mr. Alioto: Well, how else can we get a corporate view except through an individual, if your Honor please? If there is——

The Court: If you can find out what the corporate action was.

Mr. Alioto: If there is anything clearer—perhaps we don't like some of these Supreme Court

decisions—if there is anything clearer in the books, it is the fact that you don't have to spread a conspiracy on your minutes, that you don't have to put it there, Judge; that's just as clear as anything can be, and I would be amazed if any [855] conspirator put on the corporate minutes that "I have just told the Continental Ore Company that they can't go into business"—I would be amazed at that, if your Honor please, and I think your Honor would be amazed at it, too.

The Court: But the effect of your contention is that the Canadian Government, through its representative, was influenced to do what it did by one of these defendants.

Mr. Alioto: The crux of my contention is—it comes down to this, that this defendant as an agent for the Canadian Government, used that agency for the purpose of restraining trade and participating in a conspiracy to eliminate the Continental Ore Company from the Canadian market.

The Court: Notwithstanding, it was acting under the orders of the Canadian Government.

Mr. Alioto: It wasn't acting under the orders of the Canadian Government. That's the whole point. It was purchasing under an agency.

Now, let me give this example, if your Honor please. Let's assume that a policeman is authorized by the State of California to carry a gun in order to protect the peace, the public peace. He uses that gun for the purpose of participating in a conspiracy to commit murder. Would the fact of his agency insulate him from the charge that he had partici-

pated in that conspiracy? That's all we had here.

The Court: The representative now is getting into this situation in Canada. He was made the purchasing agent by the Canadian Government.

Mr. Alioto: Yes.

The Court: Now, he acted. Now, your contention that his action was influenced by the defendant in the United States——

Mr. Alioto: I am saying that the motive and intent of his action was to carry out a conspiracy to restrain the trade of this plaintiff.

Now, if that is done——

The Court: It would be in the nature of this court reviewing an act of the Canadian Government.

Mr. Alioto: No.

The Court: We are not going into that.

Mr. Alioto: Let me ask, if your Honor will let me go into that conversation with Mr. Arrouet, where he says that these people don't belong in the business, they've got to get out of it, and that's why they are not going to ship to Canada, may I get that in?

The Court: No.

Mr. Alioto: It would be just incredible that I couldn't put that in.

The Court: No, I can't allow you to put that in.

Mr. Alioto: You will not?

The Court: No. [857]

Mr. Alioto: Okay. Well, I guess it is clear what the Court is determined to do here under the circumstances.

The Court: Well, I want to keep out of Canada, that's it.

Mr. Alioto: Now, then, that conversation in New York—I will stay out of Canada and go right to New York, 30 East 42nd Street, where these people lived, Judge, that is where I am going to go. Now I want to know what your Honor's view is so that I won't waste any further time on it; in this conversation, Mr. Arrouet, who was an important employee of this company, tells them that they ought to get out of the vanadium business, they have no business in it.

He further tells them that he is going to make trouble for Climax Molybdenum if they try to deal with Climax Molybdenum to make ferro vanadium for them. I think it is in the same category as the evidence of Vanadium Corporation carrying on their little by-play with Apex Smelting that we already had.

Now, I submit——

The Court: I will permit you to make—you can make your offer of proof now, you can make your record on this, but the Court is very definite in his judgment that we should stay out of Canada and that is an act of the Canadian Government and certainly isn't binding on any of the defendants.

Mr. Alioto: Your Honor understands that the Climax Molybdenum Company is not in Canada?

The Court: I am not talking about that now. I am talking about this Canadian transaction.

Mr. Alioto: Well, this is involved in the Cana-

dian transaction, as part of the conversation that takes place with Mr. Arrouet, Judge.

The Court: The Court ruled.

Mr. Alioto: All right. If your Honor please, just let me make a record on it while we are here, we have time before noon. I will make a detailed record on it, if I may.

The Court has already stricken, as I understand, Exhibit 80, which is a letter to somebody in New York—somebody else in New York.

We offer at this time, and your Honor please, follow-up correspondence to that, which is a letter dated January 29, 1943, from Mr. Henry J. Leir to Mr. M. D. Arrouet of the Electro Metallurgical Company, 30 East 42nd Street, New York City. It is from a man in New York to another man in New York on the subject matter of shipping vanadium from the United States of America to Canada, and on the other subject matter suppressing that shipment of vanadium from the United States of America to Canada.

We will offer that to prove that this defendant at this point was engaged in restraining the plaintiff's vanadium trade, as well as its United States trade. [859]

Does your Honor want to rule on that now?

The Court: Go ahead and make your offer.

Mr. Alioto: Do you want me to complete the offer?

We next offer in evidence a letter dated February 10, 1943, from the Electro Metallurgical Company of Canada, Limited, to the Continental

Ore Company, which states, among other things, that it is acting as the result of a reference made to it by the Electro Metallurgical Company of New York City, this defendant in the action. This is dated February 10, 1943, if your Honor please. We will offer this in evidence as our next exhibit in order.

We will offer as our next exhibit after that a letter dated February 11, 1943, from Henry J. Leir, Continental Ore Company, to the Electro Metallurgical Company of Canada, Limited, Welland, Ontario, Canada, addressed to its vice-president, Mr. C. S. Bravin.

We offer next into evidence a letter from C. S. Bravin of the Electro Metallurgical Company of Canada, Limited, to Henry J. Leir, in reference to the same matter.

Now, Mr. Archer, at this point, so there won't be any question about it, I take it, it will be stipulated that the Electro Metallurgical Sales Company of Canada was in 1943 a wholly owned subsidiary of the Union Carbide and Carbon Corporation.

Mr. Archer: That's correct, as agent for the Metals Control of Canada.

Mr. Alioto: Thank you, Mr. Archer.

Mr. Archer: I think you have the names there wrong.

Mr. Alioto: Well, here's the name, right on the letterhead, the last one I gave you. It is the Electro Metallurgical Company of Canada, Limited, of Welland, Ontario, and it is stipulated, I take it, that

throughout the period of the year of 1943 this company was a wholly owned subsidiary of the Union Carbide and Carbon Corporation. [861]

Mr. Archer: Yes. One other thing with regard to this offer. I think it should be noted that Electro Metallurgical Sales of New York was never served in this action, either.

Mr. Alioto: The next is a letter, if your Honor please, dated February 17, 1943, from Mr. C. S. Bravin of the Electro Metallurgical Company of Canada, to the Continental Ore Company.

(The document referred to was thereupon marked Plaintiffs' Exhibit No. 84 for identification.)

Mr. Alioto: This is a telegram from Continental Ore Company to C. S. Bravin, Electro Metallurgical Company of Canada, dated February 18, 1943.

(The telegram referred to was thereupon marked Plaintiffs' Exhibit No. 85 for identification.)

Mr. Alioto: The next is a letter dated February 23, 1943, from C. S. Bravin of the Electro Metallurgical Company of Canada to the Continental Ore Company.

(The letter referred to was thereupon marked Plaintiffs' Exhibit No. 86 for identification.)

Mr. Alioto: The next is a telegram dated March 1st, from Continental Ore Company to C. S. Bravin.

(The telegram was thereupon marked Plaintiffs' Exhibit No. 87 for identification.)

Mr. Alioto: The next is a letter of March 3rd,

1943, from Henry J. Leir to Electro Metallurgical Company [862] of Canada, Ltd.

(The document referred to was marked Plaintiffs' Exhibit No. 88 for identification.)

Mr. Alioto: The next is a letter from Continental Ore Company to Electro Metallurgical Company of Canada, dated March the 10th, 1943.

(The document referred to was marked Plaintiffs' Exhibit No. 89 for identification.)

Mr. Alioto: The next is a telegram from Continental Ore Company to Mr. C. S. Bravin, Vice-President, Electro Metallurgical Company of Canada.

(The document referred to was marked Plaintiffs' Exhibit No. 90 for identification.)

Mr. Alioto: The next is a telegram from Electro Metallurgical Company, Bravin, to Continental Ore Corporation.

The next is a letter from Continental Ore Company to Office of the Metals Controller, Department of Munitions and Supply, dated April 26, 1943.

(The document referred to was marked Plaintiffs' Exhibit No. 91 for identification.)

(The document referred to was marked Plaintiffs' Exhibit No. 92 for identification.)

Mr. Alioto: The next is a letter from Mr. C. B. Dawson for G. C. Bateman, Metals Controller, to Continental Ore Company, dated April 29th, 1943.

(The document referred to was marked Plaintiffs' Exhibit No. 93 for identification.)

The next is a letter from Continental Ore Com-

pany to Electro Metallurgical Company of Canada, Ltd., dated May 4, 1943.

(Whereupon the document referred to was marked Plaintiff's Exhibit 94 for identification.)

The next is a letter from Continental Ore Company to Electro Metallurgical Company of Canada, Ltd., dated May 17, 1943.

(Whereupon the document referred to was marked Plaintiff's Exhibit 95 for identification.)

The next is a letter from Continental Ore Company to Electro Metallurgical Company of Canada, Ltd., dated May 20, 1943.

(Whereupon the document referred to was marked Plaintiff's Exhibit 96 for identification.)

The next is a letter from Electro Metallurgical Company of Canada, Ltd., to Continental Ore Company, dated June 1, 1943, to the attention of Mr. M. Wolf.

(Whereupon the document referred to was marked Plaintiff's Exhibit 97 for identification.)

The next is a telegram from Continental Ore Company to Mr. W. Lathrop, Metallurgical Engineer, Electro Metallurgical Company of Canada, Ltd., dated June 1, 1943.

(Whereupon the document referred to was marked Plaintiff's Exhibit 98 for identification.) [864]

The next is a letter dated June 29, 1943, between

the Continental Ore Company and Electro Metallurgical Sales Company of Canada.

(Whereupon the document referred to was marked Plaintiff's Exhibit 99 for identification.)

The next is a letter dated July 5, 1943, between Mr. C. S. Brovin, Vice-President of Electro Metallurgical Company of Canada, Ltd., to Continental Ore Company.

(Whereupon the document referred to was marked Plaintiff's Exhibit 100 for identification.)

The next is a letter from Continental Ore Company, Henry J. Leir, to Electro Metallurgical Company of Canada, Ltd., Attention, Mr. C. S. Brovin, Vice-President, on the subject of Van-Ex for Atlas Sales Limited.

(Whereupon the document referred to was marked Plaintiff's Exhibit 101 for identification.)

The next is an original letter from Mr. Brovin dated August 2, 1943, Mr. Brovin being the Vice-President of Electro Metallurgical Company of Canada, Ltd., to Continental Ore Company.

(Whereupon the document referred to was marked Plaintiff's Exhibit 102 for identification.)

The Court: Pardon me just one moment. The defendants actually served in this case were the Union Carbide & Carbon Company and the Vanadium Corporation of America. [865] Was the Electro Metallurgical Company served?

Mr. Alioto: No, if your Honor please. During a period of time right around the lawsuit, the Electro Metallurgical Sales Company was merged into the Union Carbide. I think that was in 1948 or 1949. The Electro Metallurgical Company became a division of Union Carbide.

The Court: I understand.

Mr. Aloto: It was never served.

The Court: But it was never served.

Mr. Alioto: No.

Mr. Archer: The two defendants who were served were the Union Carbide & Carbon Corporation, which is now known as the Union Carbide Corporation, and United States Vanadium Corporation, which was Mr. Burwell's company.

The Court: The United States Vanadium Corporation was served?

Mr. Archer: Yes, your Honor.

The Court: And then the Vanadium Company of America.

Mr. Holland: That is right.

Mr. Alioto: Mr. Archer, can we agree that the Electro Metallurgical Company and the Electro Metallurgical Sales Company were merged or were taken into the Union Carbide & Carbon Corporation?

Mr. Archer: I do not know what the fact is. I [866] think it is in our answer.

Mr. Alioto: That is part of the admissions here, if your Honor please, that these companies were merged.

Mr. Archer: I think it was merged after the lawsuit, though, wasn't it?

Mr. Alioto: I do not know when it was merged. In March of 1949, these companies were merged into the Union Carbide & Carbon Corporation.

Mr. Archer: I think there was actually a dissolution.

Mr. Alioto: All right, it was dissolved.

The Court: You mean the Electro Metallurgical Company was dissolved?

Mr. Archer: Yes, your Honor.

Mr. Alioto: What is the date, Mr. Archer? March of 1949?

Mr. Archer: I will have to look at my notes. I don't carry that in my head.

Mr. Alioto: Will you be good enough to do that? I will be here for a little while. Does your Honor want to excuse the jury? It is past 12:00 o'clock, I notice. Oh, I understand they have already been excused. While you are getting that, Mr. Archer, I will go ahead.

We offer next, if your Honor please, a letter dated September 23, 1943, from the Continental Ore Company to the [867] Electro Metallurgical Company of Canada, Ltd.

(Whereupon the document referred to was marked Plaintiff's Exhibit 103 for identification.)

A letter dated October 4, 1943, from Mr. Brovin, the vice-president of Electro Metallurgical Company of Canada, to Mr. Henry J. Leir, the president of the Continental Ore Company.

(Whereupon the document referred to was marked Plaintiff's Exhibit 104 for identification.)

Next a letter from Mr. Henry J. Leir to the Electro Metallurgical Company of Canada dated October 5, 1943.

(Whereupon the letter referred to was marked Plaintiff's Exhibit 105 for identification.)

We offer next under date of October 27, 1943, a letter from the Continental Ore Company to the Electro Metallurgical Company of Canada, Ltd.

(Whereupon the letter referred to was marked Plaintiff's Exhibit 106 for identification.)

Next is a letter dated October 30, 1943, from the Electro Metallurgical Company of Canada, Ltd., to the Continental Ore Company, 500 Fifth Avenue, New York City.

(Whereupon the letter referred to was marked Plaintiff's Exhibit 107 for identification.)

We offer finally a letter dated February 2, 1944, from Mr. Henry J. Leir to the Electro Metallurgical Company of Canada, and by way of a carbon copy to Mr. George B. Walker [868] of the Electro Metallurgical Company, 30 East 42nd Street, New York, New York.

(Whereupon the document referred to was marked Plaintiff's Exhibit 108 for identification.)

Now, if your Honor please, we offer through this

witness to prove the following facts, that at the end of 1942 and 1943 the Electro Metallurgical Company of Canada, which had been appointed as the purchasing agent by an agency of the Canadian Government, that is, the purchasing agent for vanadium, determined that it would not permit any further shipments from the Continental Ore Company into the Canadian market. In that connection we offer to prove that he was acting under instructions from the officials of Union Carbide or its affiliates in order to eliminate the plaintiff from the Canadian market.

The Court: Just a moment.

Mr. Alioto: Yes, Judge.

The Court: You are going to prove by him now. What does he know about it?

Mr. Alioto: He had a conference with Mr. Arrouet and he made it very plain what the situation was.

The Court: Mr. Arrouet was not connected with the Union Carbide, was he?

Mr. Alioto: Oh, yes, he was, Judge. I thought I had made that rather clear. He had been a confidential [869] agent for them in connection with their dealings on the Continent with the European cartel, a very important man in the organization.

The Court: He was not an officer of the corporation, was he?

Mr. Alioto: No, he was not an officer of the corporation, and he has not been made an officer of the corporation since this lawsuit was filed. He is a man, however, who commands a very high

salary, and he was a man who was entrusted—we shall further prove in this connection that Mr. Arrouet was a man who was entrusted by the Carbide organization with carrying on relations in collaboration with Mr. Sneath of the Carbide organization and with the European-Canadian cartel, and that he was a confidential agent in that he personally carried with him throughout Europe certain stock of the corporation evidencing ownership in various European plants. We tentatively offer to prove in any event that it was the Carbide officials and employees which directed their wholly-owned and controlled subsidiary organization, the Electro Metallurgical Company of Canada, Ltd., to eliminate the plaintiff from the Canadian market, to take away his Canadian customers, and to supply those customers between the Vanadium Corporation of America and the Union Carbide.

We offer to prove in this connection that it was the intent and purpose of the Carbide officials and employees [870] to use the Canadian agency for the purpose of restraining the plaintiff's trade, and specifically for the purpose of carrying out the conspiracy to restrain and to monopolize the vanadium industry in the United States and Canada. He is one of the means in connection with that monopolization and restrain to eliminate the Continental Ore Company from the business. [871]

Mr. Alioto: Mr. Arrouet said further that the plaintiff, the Continental Ore Company, had no business in the vanadium business. Mr. Arrouet said further to the plaintiff that they had better

stay away from Climax and not try to make any arrangements with Climax, and they were then entering negotiation with them, as the offer of this evidence will tend to show.

Mr. Arrouet told them to stay away from Climax, and, if Climax got into the business, that Union Carbide would undertake a reprisal against the Climax Molybdenum Company.

He said, in that connection, that Union Carbide had available at its plant in California, its tungsten operation in California, quantities of molybdeum that they would use against the Climax Molybdenum Company if that company entered into negotiations with the plaintiff to manufacture ferro-vanadium for the account of the plaintiff or under a joint operating arrangement with the plaintiff.

At that juncture this witness, we offer to prove, that this witness said, in substance or effect, "Does it mean, then, Mr. Arrouet, that the picture of the world is something like this: God told Electromet to make vanadium, tungsten, ferro-manganese, and God told Vanadium Corporation to make ferro-vanadium and that nobody else would be allowed into these fields?" To which the employee of Electromet Company and the Union Carbide affiliate answered: "That was [872] just about it." And "That's the way it was going to be."

We further offer to prove at this time that Mr. Arrouet then made an offer which involved giving the plaintiff a little business in the Canadian market if he promised to stay out of it thereafter.

That is the offer of proof, if your Honor please.

We offer to make that proof through the witness now on the stand.

The Court: Just a moment. Now, the Electro Metallurgical Company and the Electro Metallurgical Company of Canada were never served in this case, is that right?

Mr. Archer: That's correct, your Honor.

The Court: Now, when was the Electro Metallurgical Company dissolved?

Mr. Archer: The Electro Metallurgical Company was liquidated and its assets transferred to the Union Carbide & Carbon Corporation on November 30, 1948, and it was dissolved formally on January 5, 1949.

Mr. Alioto: Before the complaint was filed.

Mr. Archer: Just a minute. Electro Metallurgical Sales Corporation was merged with Union Carbide & Carbon Corporation March 14, 1949, and the Electro Metallurgical Company of Canada neither does business, maintains an office, nor can be found in San Francisco.

Mr. Alioto: What is the corporate status of the Electro Metallurgical Company of Canada, Mr. Archer? [873]

Mr. Archer: It is a wholly-owned subsidiary and it is a Canadian corporation.

Mr. Alioto: Wholly-owned subsidiary of what company?

Mr. Archer: Well, I don't know whether it is Electro Metallurgical Company——

Mr. Alioto: Ask Mr. Lyon on that.

Mr. Archer: He says, "I am not sure." I can

find that out for your Honor. It was never served in this action and I believe it is still in existence. Certainly it existed, it was in existence——

The Court: Now, the offer of proof is denied for the reason that this is a transaction wholly in the hands of the Canadian Government and that whether or not this plaintiff was permitted to sell his material to a customer in Canada was a matter wholly within the control of the Canadian Government.

Exception is allowed.

Mr. Alioto: May I supplement the offer, if your Honor please? We offer to prove at this point that the Canadian Government was totally oblivious to the purpose for which its agent, the Electro Metallurgical Company of Canada, made its decision not to deal with the plaintiff and to eliminate the plaintiff from the Canadian business.

The Court: I don't know how you can prove that. [874] That will be denied also.

Mr. Alioto: Now, your Honor, the Arrouet conversation covered matters in the United States as well as in Canada.

The Court: Yes, I understand.

Mr. Alioto: And your Honor is excluding the Arrouet conversation as well—

The Court: I am putting that letter out.

Mr. Alioto: No, the Arrouet matter is a conversation. It is a conversation, not a letter, if your Honor please.

Mr. Holland: If the Court please, I think Mr. Alioto is trying to tie in some conversations to the

Canadian situation, and as I understand your Honor's ruling, it applies only to the extent that these conversations involved Canada. I think there may be other considerations if there were conversations that involved business in the United States only.

Mr. Alioto: I appreciate Mr. Holland associating with me in this argument.

Mr. Holland: Well, I don't mean that.

Mr. Alioto: I am more than happy to have it, Joe.

Mr. Holland: I think it should be kept separate, the Canadian——

Mr. Alioto: How can you separate it?

The Court: You are offering this letter in support of your contention that the Canadian Government, through its [875] representative, was influenced by an agent for the defendant corporation to do what it did. My ruling goes to this point, that we cannot review a decision by the Canadian Government; it is not within the jurisdiction of this Court. It is not within the jurisdiction of the United States; it is a separate nation.

Now, as to any conversations that dealt with other matters, there might be portions of the conversation that would be competent in your general case, but not so far as applied to Canada.

Mr. Alioto: Well, my offer to prove is just as I have stated it, if your Honor please. He held the conversation with Mr. Arrouet to find out if he could break this log jam in connection with shipments to Canada and during that conversation Mr.

Arrouet said, in substance or effect, that we have no business in the vanadium business anywhere, in the United States or Canada. In other words, he covered both territories. I don't know how you can separate the situation.

The Court: We will see about that later. It might be that part of that would be competent, but all that had to do with Canada—all in connection with the Canadian deal, that is what the Court is ruling on now, that that is separate and distinct.

Mr. Alioto: Climax had, of course, nothing to do with the Canadian transaction except that it might be a supplier [876] for Canada. It might be a supplier for Canada. But, specifically, we offer to prove as well, if your Honor please, that the agency was used for the purpose of furthering the monopolization and the conspiracy to eliminate the plaintiff from the business. That's basically what our offer of proof comes down to.

The Court: Same ruling.

Mr. Alioto: All right. Now, I understand, without infringing upon the Court's ruling, I may inquire about this Arrouet conversation which admittedly came up in connection with the Canadian matters?

The Court: Well, you can't refer to the Canadian part of it, if you do. I don't know how you can——

Mr. Alioto: We will do the best we can. We will do the best we can. It's pretty hard to cut conversations, but we will do the best we can.

The Court: Any reference made to the Cana-

dian proposition. That's a matter of the Canadian Government.

Mr. Alioto: One final document we offer in evidence, if your Honor please; we offer it as a memorandum made by this witness on June 11, 1943, recording his conversation with Mr. Arrouet, which had taken place very shortly before June 11, 1943.

Mr. Holland: May I see it?

Mr. Alioto: Yes. [877]

So the record may be clear, if your Honor please, I would like each of the letters submitted to be marked for identification, there being no way of tying them in otherwise.

The Court: Very well.

Mr. Alioto: Thank you very much.

The Clerk: Plaintiff's Exhibits 80 through 109 marked for identification.

(Thereupon marked for identification, Exhibit 80 (heretofore marked), copy of letter January 19, 1943, Henry J. Leir to C. B. Walker, Electro Metallurgical Company, New York City; as Plaintiff's 81 for identification copy of letter from Leir to M. D. Arrouet, New York; Plaintiff's 82 for identification, letter 2/10/43, Electro Metallurgical Co. of Canada to Continental Ore.) [878]

(Whereupon, copy of letter dated 2/11/43, Continental Ore Company, Henry J. Leir, to Electro Metallurgical Company of Canada, Ltd., was marked as Plaintiff's Exhibit 83 for identification.)

(Whereupon, copy of letter dated 2/17/43,

Electro Metallurgical Company of Canada, Ltd., to Continental Ore Company, was marked as Plaintiff's Exhibit 84 for identification.)

(Whereupon, copy of telegram, Continental Ore Company to Electro Metallurgical Company of Canada, Ltd., was marked as Plaintiff's Exhibit 85 for identification.)

(Whereupon, copy of letter dated 2/23/43, Electro Metallurgical Company of Canada, Ltd., to Continental Ore Company, was marked Plaintiff's Exhibit 86 for identification.)

(Whereupon, copy of telegram dated 3/1/43, Continental Ore Company to Electro Metallurgical Company of Canada, Ltd., was marked Plaintiff's Exhibit 87 for identification.)

(Whereupon, copy of letter dated 3/3/43, Continental Ore Company to Electro Metallurgical Company of Canada, Ltd., was marked as Plaintiff's Exhibit 88 for identification.)

(Whereupon, copy of letter dated 3/10/43, Continental Ore Company to Electro Metallurgical Company of Canada, Ltd., was marked as Plaintiff's Exhibit 89 for identification.)

(Whereupon, copy of wire dated 3/19/43, Continental Ore Company to Electro Metallurgical Company of Canada, Ltd., was marked as Plaintiff's Exhibit 90 for identification.)

(Whereupon, telegram from Electro Metallurgical Company of Canada, Ltd., to Continental Ore Corporation, was marked as Plaintiff's Exhibit 91 for identification.) [879]

(Whereupon, copy of letter dated 4/26/43,

Continental Ore Company to Office of Metals Comptroller, Ottawa, Ontario, Canada, was marked as Plaintiff's Exhibit 92 for identification.)

(Whereupon, letter dated 4/29/43, Office of Metals Comptroller, Department of Munitions & Supply, Ottawa, Canada, to Continental Ore Corporation, was marked Plaintiff's Exhibit 93 for identification.)

(Whereupon, copy of letter dated 5/4/43, Continental Ore Company to Electro Metallurgical Company of Canada, Ltd., was marked Plaintiff's Exhibit 94 for identification.)

(Whereupon, copy of letter dated 5/17/43, Continental Ore Company to Electro Metallurgical Company of Canada, Ltd., was marked Plaintiff's Exhibit 95 for identification.)

(Whereupon, copy of letter dated 5/20/43, Continental Ore Company to Electro Metallurgical Company of Canada, Ltd., was marked Plaintiff's Exhibit 96 for identification.)

(Whereupon, letter dated 6/1/43, Electro Metallurgical Company of Canada, Ltd., to Continental Ore Company, was marked Plaintiff's Exhibit 97 for identification.)

(Whereupon, copy of telegram dated 6/1/43, Continental Ore Company to Electro Metallurgical Company of Canada, Ltd., was marked Plaintiff's Exhibit 98 for identification.)

(Whereupon, copy of letter from Continental Ore Company to Electro Metallurgical Company of Canada, Ltd., dated 6/29/43, was

marked Plaintiff's Exhibit 99 for identification.) [880]

(Whereupon, letter from Electro Metallurgical Company of Canada, Ltd., to Continental Ore Company, dated 7/5/43, was marked Plaintiff's Exhibit 100 for identification.)

(Whereupon, copy of letter from Continental Ore Company to Electro Metallurgical Company of Canada, Ltd., dated 7/30/43, was marked Plaintiff's Exhibit 101 for identification.)

(Whereupon, letter from Electro Metallurgical Company of Canada, Ltd., to Continental Ore Company, dated 8/2/43, was marked Plaintiff's Exhibit 102 for identification.)

(Whereupon, copy of letter from Continental Ore to Electro Metallurgical Company of Canada, Ltd., dated 9/23/43, was marked Plaintiff's Exhibit 103 for identification.)

(Whereupon, copy of letter from Electro Metallurgical Company of Canada, Ltd., to Continental Ore Company, dated 10/4/43, was marked Plaintiff's Exhibit 104 for identification.)

(Whereupon, copy of letter from Continental Ore to Electro Metallurgical Company of Canada, Ltd., dated 10/5/43, was marked Plaintiff's Exhibit 105 for identification.)

(Whereupon, copy of letter from Continental Ore to Electro Metallurgical Company of Canada, Ltd., dated 10/27/43, was marked Plaintiff's Exhibit 106 for identification.)

(Whereupon, copy of letter from Electro Metallurgical Company of Canada, Ltd., to Continental Ore Company, dated 10/30/43, was marked Plaintiff's Exhibit 107 for identification.) [881]

(Whereupon, copy of letter from Continental Ore to Electro Metallurgical Company of Canada, Ltd., dated 2/2/44, was marked Plaintiff's Exhibit 108 for identification.)

(Whereupon, memorandum of Mr. Wolf, dated 6/11/43, was marked Plaintiff's Exhibit 109 for identification.)

Mr. Alioto: Now, if your Honor please, in addition to the decision of Judge Hutchinson of the Fifth Circuit, there are a number of other decisions holding that Governmental power may be used or Governmental agency may be used for the purpose of furthering monopoly or conspiracy to restrain.

I take it that your Honor does not want me to present those cases in an argument in connection with this offer?

The Court: Let the appellate court look at those.

Mr. Archer: In connection with this last exhibit, Mr. Arrouet didn't write this. Mr. Wolf wrote it.

Mr. Alioto: I pointed out that the witness made a memorandum of his conversation with Mr. Arrouet and recorded that conversation at or about the time it was had with Mr. Arrouet.

Mr. Holland: You just add that to your other offer of proof, is that it?

Mr. Alioto: I offered the memorandum, yes, as part of the documents.

Mr. Holland: I mean, it has already been ruled upon?

Mr. Alioto: Yes, the Court has ruled after that document was offered. The last document, the Court has ruled, is excluded as well.

The Court: That goes into the Canadian matter.

Mr. Alioto: Yes.

Now, I understand—I don't want the Court to ever think I am being disrespectful or discourteous. I am going to inquire—I like tough-minded judges myself, your Honor—I like tough-minded people—but I am going to inquire this afternoon about the Arrouet conversation and as it relates to anything in America.

Now, I don't know how the witness can give part of the conversation without giving the setting for it, but we will do the best we can, Judge.

The Court: That's the trouble, you know; there's too much setting.

Mr. Alioto: Well, this is a very simple one——

The Court: ——letting all these other things in. You might ask him if he had a conversation with Mr. Arrouet, and he would be permitted to state what that conversation was, except as it referred to Canada.

Mr. Alioto: Well, it might be very much, if your Honor please, like having a discussion on Hamlet without mentioning the Prince of Denmark. We'll do the best we can, Judge.

The Court: We will recess until 2:00 o'clock.

(Recess until 2:00 o'clock p.m.)

June 10, 1958, 2:00 o'clock p.m.

(The Jury resumed their places in the box, the witness, Mr. Wolf, resumed the stand, and the following occurred in the presence of all parties:)

MARTIN WOLF,

a witness called by and on behalf of the Plaintiffs, having been previously duly sworn, resumed the stand and testified further as follows:

Direct Examination—(Continued)

Q. (By Mr. Alioto): This morning we were speaking of the type of ferro-vanadium manufactured by the Apex Smelting Company under its joint venture with Continental Ore, and the content, particularly of that ferro-vanadium as compared to what the other two manufacturers in the industry were doing.

Now, then, you had a product called Van-Ex, did you not? A. Yes.

Q. Would you be good enough to state generally what that product consisted of?

A. Van-Ex is mainly a vanadium oxide, and it is an exothermic vanadium oxide, meaning that it has certain properties which make it self-reducing. Self-reducing, in turn, means that you reduce the oxide to a metal in the process of [884] adding it to the steel where you want it ultimately to be.

Q. Was that product marketed by the Continental Ore Company during the time that you were with the Continental Ore Company?

A. It was.

VOLUME III

TRANSCRIPT OF RECORD

Supreme Court of the United States

OCTOBER TERM, 1961

No. 304

CONTINENTAL ORE COMPANY, ET AL.,
PETITIONERS,

vs.

UNION CARBIDE AND CARBON
CORPORATION, ET AL.

ON WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

PETITION FOR CERTIORARI FILED AUGUST 11, 1961
CERTIORARI GRANTED OCTOBER 23, 1961

No. 16149

United States
Court of Appeals
for the Ninth Circuit

CONTINENTAL ORE COMPANY, a Partnership, and HENRY J. LEIR, ERNA D. LEIR, LINA SCHLOSS, as Individuals and as partners under the trade name and style of CONTINENTAL ORE COMPANY,

Appellants,

vs.

UNION CARBIDE AND CARBON CORPORATION; UNITED STATES VANADIUM CORPORATION; ELECTRO METALLURGICAL COMPANY; ELECTRA METALLURGICAL SALES CORPORATION; ELECTRO METALLURGICAL COMPANY OF CANADA, LIMITED; VANADIUM CORPORATION OF AMERICA,

Appellees.

Transcript of Record

In Seven Volumes

VOLUME III.

(Pages 841 to 1240, inclusive)

Appeal from the United States District Court
for the Northern District of California.
Southern Division

(Testimony of Martin Wolf.)

Q. And to what general class of customers was that product marketed?

A. Again to the steel industry.

Q. Was that same product or products substantially like that one distributed by the two other manufacturers of ferro-vanadium?

A. No, it was entirely different.

Q. Do you know whether anybody in the country distributed that type of product, that is, vanadium oxide, mixed with other elements, to the steel industry?

A. I believe some steel companies used some vanadium oxide to a very minor extent, instead of ferro-vanadium.

Q. Was the Electro Metallurgical Company selling this type of product to the steel companies?

A. I wouldn't know out of my own knowledge.

Q. How about the Vanadium Corporation of America? A. The same answer.

Q. Did you have some experiments in Europe in connection with using the oxide directly in the steel bath in place of ferro-vanadium? [885]

A. Yes, we developed this actually in Europe on the theory that you avoid a heat loss.

Q. Just explain that a little bit in layman's terms, if you can, Mr. Wolf.

A. Well, in producing the ferro alloy, whether you do it in an electric furnace or by aluminum thermic methods, you use a melt. You melt the oxide down into the ferro alloy. Then when the liquid mass has cooled it becomes a stable product

(Testimony of Martin Wolf.)

and you crush it and you send it out in lumps to the customers, who in turn throw it into their steel bath. This ferro alloy is cooled and tends to cool the steel bath. The theory that we developed in France was that you could as well produce the ferro alloy by mixing all the ingredients together and introducing these ingredients like a finished cake mix into the steel, with the result that the ferro alloy is formed right when it hits the heat of the steel furnace, and then when the ferro alloy is in liquid form, at that moment it is incorporated into the steel so that there by no loss of heat.

Q. (By the Court): Was this method of producing Van-Ex a secret method?

A. Well, we considered that the exact composition of it, yes, was secret.

Q. (By Mr. Alioto): Did you offer Van-Ex or this vanadium oxide mix to the steel trade as a substitute for ferro-vanadium? [886]

A. Yes.

Q. At what price did you offer Van-Ex to the steel trade?

A. At that time we sold it mostly at $2.40 a pound of metallic vanadium contained in the mix.

Q. What was the price of the ferro-vanadium at the same time?

A. The ferro-vanadium, depending on the grade, at that time cost between $2.70 and $2.90 a pound of vanadium contained.

Q. And Van-Ex was sold at least 30 cents cheaper per pound?

(Testimony of Martin Wolf.)

A. Right, per pound of contained vanadium.

Q. The record this morning indicated that you sold substantial quantities of this to the Atlas Steel Company, for example. A. Right.

Q. And you sold all other companies, I take it?

A. Yes.

Q. Where was this Van-Ex mixed by your company?

A. We had a little shop in Long Island.

Q. A little warehouse of some type?

A. It was a warehouse with a mixer, a storeroom for the cans. We offered another service in this connection and that was that we filled the cans with the quantity of mix which corresponded to a certain stated amount of vanadium in the mix, so that it did not have to be weighed by the user.

To illustrate this, if you ship a ton of ferrovanadium, our material ranged from 70 to 80 percent of vanadium, so a customer who wanted to incorporate a certain quantity of vanadium into his steel, had to figure out, based on the contents of the vanadium, how much tonnage would have to go into this particular steel batch.

In our case we filled the cans and labeled them—I am not sure now whether it was 5 or 15 pounds of contained vanadium—so that the operator only had to count the cans. If he wanted, say, 45 pounds for a steel bath, he took 3 or 9 cans and threw them in. There was no loss in dust, no loss in handling.

Q. This mixing plant you had on Long Island was not a major operation, was it? A. No.

(Testimony of Martin Wolf.)

Q. It was a very small operation employing two or three men?

A. Right. We had one man who was there steady, and he took on, as far as I remember, workers whenever they needed them.

Q. Basically, what you took was the black vanadium oxide which you purchased wherever you could purchase it? A. Right.

Q. And then you put in a mixer. What were the ingredients, without giving the percentages involved? [888]

A. There are lots of things you can use to make this product exo-thermic. In fact, it is exo-thermic as such, but adding things, such as aluminum or ferro-silicon, you obtain a favorable result in the sense that the mixer itself creates the heat, whereas otherwise it would take it from the steel.

Q. So that basically it was vanadium oxide with these mixers? A. That is right.

Q. And how would you characterize this mixer of aluminum, silicon or fluorspar? What did they actually contribute?

A. Fluorspar is something else. Fluorspar acted only as a flux, and I do not know whether we used it in the end.

Q. And the silicon and aluminum, what function did they serve in the mix?

A. Just to provide heat.

Q. Otherwise the heat would be borrowed from what?

A. From the steel itself, from the steel bath.

(Testimony of Martin Wolf.)

Q. I take it that you manufactured substantial quantities of Van-Ex in these sales of Van-Ex?

A. As much as we could get raw materials.

Q. As you are aware, a certain subject matter was excluded from consideration this morning. I want to inquire about a conversation you had with a representative of the Union Carbide organization, but I want you to limit that conversation as best [889] you understand the limitation so as not to bring in the subject matter that was excluded by the Court this morning.

Do you know a man named D. A. Arrouet?

A. M. D. Arrouet.

Q. M. D. Arrouet?

A. Yes, I do.

Q. Do you know such a man?

A. Yes, I do.

Q. Did there come a time in June, 1943, when you visited and talked with Mr. Arrouet?

A. That is correct.

Q. As best you remember, where did that conversation take place?

A. In his own office at 30 East 42nd Street, New York City.

Q. Who was present?

A. Mr. Arrouet and myself.

Q. What is the address—30 East 42nd Street in New York. Who was there?

A. Union Carbide and their various divisions.

Q. Without indicating the circumstances that brought about the meeting itself, will you be good

(Testimony of Martin Wolf.)

enough to tell us the substance of what was said?

Mr. Archer: Pardon me. May I interpose an objection? I object to this conversation, your Honor, as being incompetent, irrelevant and immaterial, and particularly no [890] foundation laid. Your Honor will recall that Mr. Burwell testified for a week here about the vanadium business and the people that were connected with it, and I had no objection on these grounds as to conversations from men like Mr. O'Shea, Mr. Haggerson, Mr. Rafferty, Mr. Van Fleet, and even at times with Mr. Burwell, but I do not think the capacity of Mr. Arrouet to make any statements in regard to the vanadium business has been established and I do not believe that this witness can establish it, because any statement that Mr. Arrouet might have made as to his own authority would be clearly inadmissible, because a statement of an employee is only admissible after his authority has been established by testimony in court and not out of court.

Mr. Alioto: If your Honor please, let me try to meet that objection.

Mr. Archer: Pardon me. One other thing. And I thi k it is clear Mr. Arrouet was not an officer of any of the defendant corporations.

Mr. Alioto: Let me try to meet that objection in part. I think the objection is met by the documents we offered this morning, but without using those documents, let me ask the witness this question:

Q. There came a time in January, 1943, when

(Testimony of Martin Wolf.)

you filed some kind of complaint, regardless of the nature of the complaint now. We do not want that characterized. [891] A. That is right.

Q. You filed a complaint with Electro Metallurgical Company of New York? A. Right.

Q. And you had been directed to file that complaint there? A. That is right.

Q. After you filed the complaint, who was it in the Electro Metallurgical Company in New York that contacted you on the basis of the letter that you filed, the complaint that you filed?

A. I was not the man that we filed it with. It was Mr. Arrouet.

Q. Okay. Now, did this discussion that you had with Mr. Arrouet follow along in sequence from the time that you filed this complaint that we won't discuss? A. Yes.

Q. And did you on this occasion with Mr. Arrouet discuss the subject matter of that complaint about which he had called you?

A. I did.

Q. Now, will you tell us what was said?

Mr. Archer: I would like to renew my objection, your Honor.

Q. (By the Court): Do you know if Mr. Arrouet is an officer of the corporation? [892]

A. I didn't know what his exact position was. I knew he had no title, but he had a very big office.

The Court: The objection will be sustained. The statement of a mere employee would not be binding

(Testimony of Martin Wolf.)

upon a corporation unless it is shown he had authority to act.

Mr. Alioto: I think we can establish his authority by these letters, if your Honor please, without reference to the subject matter.

Q. I show you a letter marked Exhibit 80 for identification. Is this a letter composed by you in part?

A. By the Continental Ore Company and I had a hand in drafting it.

Q. In its composition? A. Right.

Q. You sent that letter to Mr. G. B. Walker of Electro Metallurgical Company?

A. Right.

Q. At 30 East 42nd Street, New York?

A. Correct.

Q. Why did you send that letter to Mr. Walker?

A. We were told to send it to him.

Q. So you sent him a letter in which you embodied some kind of a complaint, is that correct?

A. In fact, I never met Mr. Walker. I didn't know until we were told that this is the man to write to. [893]

Q. After you wrote to Mr. Walker of the Metallurgical Company setting forth a certain subject matter which we won't discuss, did you get a response from the Electro Metallurgical Company concerning the subject matter of the complaint which you embodied in 80 for identification?

A. That is right.

Q. From whom did you get that response?

(Testimony of Martin Wolf.)

A. Mr. Arronet.

Q. Will you be good enough to identify Exhibit 81-D. Is that a letter written by your company?

A. That is right.

Q. To whom is it written?

A. To Mr. Arronet.

Mr. Alioto: If your Honor please, in the light of the objection we will offer 80 and 81-D into evidence, the authority of Mr. Arronet to discuss the subject with the witness.

The Court: The difficulty in this situation is that these matters were concerning something which has been excluded. That was the subject matter. What you seek to show by this witness here is a kind of side remark. Objection sustained. Exception allowed.

Q. (By Mr. Alioto): Do you know some of the things that Mr. Arronet did while he was with the Union Carbide? A. Yes. [894]

The Court: Of your own knowledge?

The Witness: Yes, I do.

Q. (By Mr. Alioto): What did he do?

A. He was involved in certain purchasing operations, as far as I learned, in the beginning when I met him, and especially those which were not routine. They had a purchasing department that handled all the routine requests from their plants as far as supplies are concerned, but anything that went a little bit above the exact function of purchasing, you could almost call it raw material pro-

(Testimony of Martin Wolf.)

curement in a vaster sent, was channeled through Mr. Arrouet.

Q. Did that involve ore purchasing, as well?

A. Ore purchasing, yes.

Q. At the time that you went into Mr. Arrouet's office, did he tell you that he had no authority to discuss the subject matter of the letter that you had written to him?

Mr. Archer: I object to that question.

The Court: Yes, sustained. Leading.

Q. (By Mr. Alioto): How was it that you found yourself in Mr. Arrouet's office? Did you fall in by accident some day?

A. No, he called us up in answer to a letter written to them, and so it was natural to make an appointment and talk with him, because we were just half a block away from him.

Q. When you were called in for an appointment, did you [895] tell him the subject matter that you wished to discuss?

A. Naturally.

Q. Then when you were with him what was said?

Mr. Archer: I renew my objection, your Honor.

The Court: Sustained. It is clear from the offer you have made here that the sole subject of the conversation at that time was about a matter which has been excluded from this case, and now the letter which you offer or the statement, rather, indicates that some general remarks were made about other matters.

(Testimony of Martin Wolf.)

Mr. Alioto: We submit it was about the very matter in issue at the time, if your Honor please.

The Court: Objection sustained. Exception allowed.

Mr. Alioto: Then may it be understood at this point that as of this moment, in view of the further testimony given by this witness, I have renewed the offer of proof made before noon time with respect to what this witness would testify was said by Mr. Arrouet?

The Court: Very well.

Mr. Alioto: And do I understand that that offer of proof is now rejected?

The Court: Yes, sir.

Mr. Alioto: After objection.

The Court: The objection to that will be sustained. Exception allowed. [896]

Mr. Alioto: Thank you, if your Honor please.

Mr. Holland: We do not disavow. [896-A]

Q. Now, Mr. Wolf, you testified that basically you were concerned with the sales of the Continental Ore Company? A. That is right.

Q. Did you personally make your contact with the customers or was that done through third parties or agents?

A. No, it was almost exclusively done directly by telephone, visit and correspondence by myself.

Q. Now, beginning in 1942, when you were the Vice-President of the Continental Ore Company, did you personally contact the steel companies, for example? A. Yes.

(Testimony of Martin Wolf.)

Q. And what were some of the things that you sold to the steel companies or offered for sale?

A. Well, all the materials that I had named before, as far as they were applicable to their particular requirements.

Q. Now on the basis of the experience you have had in Europe, as you have already described it, and on the basis of the experience that you had in this country with the Continental Ore Company, and on the assumption that the Continental Ore Company had a regular source of supply for vanadium oxide from the time that you came with the company down to July 15 of 1949, can you make an estimate for us of how much of the vanadium business or how much ferro-vanadium or vanadium oxide could have been sold by your company in the light of all of those experiences and in the light of those facts? [897]

Mr. Holland: I object, your Honor. I think that is a highly speculative question.

The Court: Yes. Sustained. It is speculative.

Mr. Alioto: May I indicate to the Court—your Honor is familiar with the Flintkote case in this circuit which came down?

The Court: Yes. Objection sustained.

Mr. Alioto: However, your Honor does have in mind the Flintkote case?

The Court: Yes.

Mr. Alioto: Your Honor does not believe that question is covered by the Flintkote case?

The Court: No, it isn't.

(Testimony of Martin Wolf.)

Mr. Alioto: All right.

I want to make some inquiries about this thing that you call fluorspar, up to this point.

Q. State the things in common which fluorspar has with vanadium?

A. They have nothing in common as materials.

Q. Yes.

A. They have in common the use in the steel industry in the sense that they are both required by the steel industry, and we sold the two products—in fact, more than the two products—along with our entire line of materials. We sold fluorspar to the same people as we sold vanadium. [898]

Q. In the ordinary course of business, were they sold together?

A. Well, of course when we had a customer listening to us, we tried to find out what his requirements were on all the materials that we handled. We did not make a telephone call or a visit just to discuss one product; they were always discussed together.

The Court: Now, Mr. Wolf, this vanadium oxide, that is used in the manufacture of ferro-vanadium, isn't it?

A. Yes, and as a direct addition to steel.

The Court: Now, did you manufacture ferro-vanadium?

A. Through the medium of Apex. I would say yes, your Honor.

The Court: Now, the people then that had vanadium oxide, if they needed that in the manufacture

(Testimony of Martin Wolf.)

of ferro-vanadium, they would use it for that purpose, wouldn't they?

A. Yes, they would.

The Court: Proceed.

Q. (By Mr. Alioto): Would they use vanadium oxide solely for the manufacture of ferro-vanadium? Did you use it solely for that purpose?

A. Oh, yes—also used it as an ingredient in our Van-Ex, which, incidentally, later was copied again by the defendants, by Union Carbide, to a certain extent.

Q. Now in connection with fluorspar—we will come back to the Apex situation in a moment—what is fluorspar, basically, is it an ore? [899]

A. It is a mineral.

Q. It is a mineral. All right. Is it mined?

A. It is mined, yes.

Q. Is it mined in Colorado and Utah?

A. Yes. I said that before. Yes.

Q. In Wyoming? A. Right.

Q. After mining, is it concentrated?

A. Some is, some is not.

Q. Would you be good enough to state (indicating rock)—— A. That is not.

Q. This is not concentrated, it is simply mined in this fashion (indicating)? A. Yes.

Q. And some of it is concentrated after mining?

A. The low-grade is concentrated.

Q. And some of the vanadium ores are concentrated after mining, too, are they?

A. I would say almost all of them.

(Testimony of Martin Wolf.)

Q. And these are sold to the same customers?

A. Yes, same class of customers.

Q. What is your opinion as to whether or not the sales of fluorspar by the Continental Ore Company afford a reliable guide as to what your vanadium sales might have been, in the [900] absence of any restrictions?

A. Yes, I would say they were——

Mr. Holland: I object——

The Court: Wait a minute. Read that question.

(Question read back by Reporter.)

The Court: Objection sustained. Exception allowed.

Q. (By Mr. Alioto): Basically, the business of the Continental Ore Company was minerals, ores, alloys, that's correct, isn't it? A. Yes.

Q. Do you have with you, so that you can read into this record, the volume of fluorspar sales made by the Continental Ore Company? A. Yes.

Q. In the period of time that you became associated with the Continental Ore Company down to July 15 of 1949? A. Yes, I can.

Q. Would you be good enough to tell us what that volume of sales is?

Mr. Holland: I object, your Honor. I think it is absolutely immaterial in this case.

The Court: Objection sustained. It is immaterial. It has nothing to do with this lawsuit.

Mr. Alioto: Your Honor, we earlier called your Honor's attention to the case of Welch Grapefruit.

The Court: Yes. [901]

(Testimony of Martin Wolf.)

Mr. Alioto: Your Honor is familiar with that case?

The Court: Yes.

Mr. Alioto: In which the increase in the related grocery products was held to be an index of what the situation might have been otherwise.

The Court: The Court has ruled.

Mr. Alioto: In other words, your Honor——

The Court: Exception allowed.

Mr. Alioto: All right.

The Court: Go to something else.

Mr. Alioto: I take it there is no point in bringing that case before your Honor further, your Honor is familiar.

The Court: I am.

Mr. Alioto: All right.

Q. Now you stated you were familiar with the Apex plant; you saw the Apex plant?

A. Yes, that's correct.

Q. You are also familiar with the French plant under which you have had experience in Europe?

A. Correct.

Q. What was the approximate capacity of the Apex plant?

A. I would say that it could make about 30,000 pounds of metallic vanadium contained in ferro-vanadium per month.

Q. That was a monthly capacity of Apex plant?

A. I would guess that, yes. [902]

Q. Now, on the assumption that the Apex plant had no restrictions of any type in securing a regu-

(Testimony of Martin Wolf.)

lar source of supply of vanadium oxide, what amount of ferro-vanadium do you believe could have been manufactured under that contract?

Mr. Holland: I object to the question, your Honor.

The Court: Objection sustained. Exception allowed. He stated the capacity.

Mr. Alioto: Yes. That's only one phase of it. Then the question of sales come in.

Q. Were the market conditions such between 1942 to 1949 that your sales organization could have sold the total output of the Apex plant operating at capacity?

A. I would say not right in the beginning but afterwards, yes.

Q. Well, starting from the time you were connected in January of 1942.

A. I would assume so, yes.

Q. Now, you say you would assume so——

Mr. Holland: I object and ask that the answer be stricken. The witness has testified he is just assuming so.

The Court: Yes. Objection is sustained.

Q. (By Mr. Alioto): What is your opinion as to whether or not your sales organization could have sold the total capacity of Apex from the time you became associated with Continental Ore down to 1949? [903]

A. I believe we could have sold it if we had not had the interruption because of shortage of raw materials.

(Testimony of Martin Wolf.)

Q. Then, what do you base that belief on that you could have sold this material?

A. Because we had been doing fairly well in everything else.

Mr. Holland: I object, your Honor, and ask that the answer be stricken. What they had been doing in something else involves many other factors.

The Court: Yes. Sustained.

Q. (By Mr. Alioto): What other basis is there for——

The Court: The statement will be stricken and the jury will not consider it.

Q. (By Mr. Alioto): What other basis do you have for the opinion that you have expressed that you could have sold the total Apex production?

A. Well, one, that Union Carbide later on made the same grade of material that we had introduced in this country, so they paid us a compliment of imitating us, and the same applies to these annex.

Mr. Archer: I object to that because his opinion is clearly based upon events after the filing of this lawsuit.

The Court: Sustained.

Mr. Archer: Move to strike.

The Court: Exception allowed, the jury will disregard the answer. [904]

Q. (By Mr. Alioto): Now, then, what other basis do you have for saying that the sales organization of Continental Ore Company under your supervision could have sold the total production of Apex?

(Testimony of Martin Wolf.)

A. I think the only criterion left is that we had demands from the customers that we couldn't fill.

Mr. Holland: No period is stated here, your Honor, as to when this applied.

Mr. Alioto: In 1942 to 1949.

A. There were periods, of course, where business was slow, where I would assume we would not have sold all of that, but since even in its low periods we had increased our sales all over the years, sometimes against the trend, I would assume that we would have done very well in the vanadium field, too.

Mr. Holland: I ask that the answer be stricken. He is talking about other products, other than vanadium.

The Court: Sustained. The jury will disregard the answer.

Q. (By Mr. Alioto): Now, you said that the Continental Ore Company made sales against the trend? A. Right.

Q. During some period of that period from January 1, 1942 to July 15 of 1949. Would you be good enough to state what you mean by that? [905]

Mr. Holland: I object, your Honor. The trend that he is referring to is sales in other products.

The Court: Well, he may state whether or not that is what he meant.

Q. (By Mr. Alioto): What did you mean by "making sales against the trend"?

A. Well, when I looked at the figures as to the total sales of certain products and our participa-

(Testimony of Martin Wolf.)

tion in this business, we found that while the total sales had dropped, our individual sales had increased.

The Court: Sales of what?

A. Of various ores, fluorspar, for instance.

The Court: Objection sustained. The jury will disregard the answer.

Q. (By Mr. Alioto): Approximately when was it that you begin selling Van-Ex to the trade?

A. It was about the time that—I believe it was in 1942, the start, I believe. That was the time when Apex was only operating intermittently.

Q. Now, in the light of the industry conditions as you knew them from your own experience, from January 1, 1942 to 1949, do you have an estimate of how much Van-Ex you could have sold for shipments from the United States during that period, 1940 to 1949, if during that entire period you would have had a regular and dependable source of supply? [906]

Mr. Archer: I object to that, your Honor, as calling for a conclusion of the witness and no foundation laid, as I understand the question.

The Court: Objection will be sustained. It is purely speculative.

Q. (By Mr. Alioto): You sold Van-Ex during the period after January 1, 1942, didn't you?

A. We did, indeed.

Q. You knew the customers who required Van-Ex? A. Right.

Q. And you kept a contact with those customers

(Testimony of Martin Wolf.)

from 1942 to 1949, did you not? A. Yes.

Q. And they were basically the same manufacturers? A. Yes.

Q. Were they not? A. Yes.

Q. Now, on the basis of your contact with those customers of Van-Ex, do you have an estimate, on the basis of all of your experience in the industry and the marketing phase of this industry, do you have an opinion as to what quantities of Van-Ex could have been sold by the Continental Ore Company during the period of time from 1942 to 1949, on the assumption it had a dependable source of supply?

Mr. Holland: I object, your Honor. [907]

The Court: Objection sustained. Exception allowed. Purely speculative.

Q. (By Mr. Alioto): On the assumption that the Loma mill had not been taken out of business in 1939, on the assumption that the Mesa vanadium mill had not been taken out of business in 1940, and on the assumption that the Rifle mill did not go out of business around 1940, on the assumption that there were independent suppliers of vanadium oxide who sold to the Continental Ore Company off the Colorado Plateau in the period beginning 1940 to 1949, making those assumptions, how much vanadium oxide you could purchase from those sources could you have resold in the period January 1, 1942 to July 15, 1949?

Mr. Archer: I object, your Honor. Part of the question clearly calls for what happened two years

(Testimony of Martin Wolf.)

before Mr. Wolf went to work for the plaintiff and it is obviously a conclusion.

The Court: Objection is sustained.

Mr. Alioto: On the assumption——

The Court: Too highly speculative.

Mr. Alioto: Let me cover this ground of the objection made by counsel.

Q. On the assumption that the Mesa Vanadium Company was producing in January 1, 1942 and the Loma Vanadium Company was producing in January 1, 1942 and the Gateway Deposit, close to Gateway, had not been mined out so far as its highly accessible [908] ore and high-content ore was concerned, and that that was in existence in January 1 of 1942, and that there was a source of independent vanadium oxide in January 1 of 1942 from which you could have produced to capacity at Apex, how much ferro-vanadium do you believe you could have sold in the period from January 1, 1942 to July 15 of 1949, making those assumptions?

Mr. Holland: I object, your Honor. That is the most speculative question yet.

The Court: Yes. Objection sustained.

Mr. Alioto: I want to come back and complete the record so far as the fluorspar situation is concerned, if your Honor please.

Q. Now, we already have in evidence the fact that you personally supervised certain sales of ferro-vanadium and Van-Ex during the period from 1942 to 1944. A. Correct.

(Testimony of Martin Wolf.)

Q. On the basis of that experience, the basis of having sold that product, and the basis of the conditions as they existed at the time, including all the Government restrictions that existed at the time, do you have an opinion as to how much more ferro-vanadium you could have sold in that period of time if it had been available to you?

Mr. Holland: I object, your Honor.

The Court: Objection sustained.

Q. (By Mr. Alioto): On the basis of the [909] experience you actually had selling your ferro-vanadium and Van-Ex in the period January 1, 1942 through to the end of 1944, on the basis of that actual experience, on the basis of your knowledge of the industry at the time, and of your experience and of your knowledge of the general business conditions at the time, do you have an opinion as to how much more ferro-vanadium or Van-Ex the Continental Ore Company would have sold in the period from 1944 to 1949?

Mr. Holland: I object, your Honor.

The Court: Objection sustained.

Q. (By Mr. Alioto): What is the actual increase in the sales of fluorspar by the Continental Ore Company in the period beginning 1940 to 1949?

Mr. Holland: Object, your Honor. Immaterial.

The Court: Objection sustained.

Q. (By Mr. Alioto): What is the actual increase in the sales of minerals, ores and alloys—the actual increase in shipments made by the Con-

(Testimony of Martin Wolf.)

tinental Ore Company for the period from January 1 of 1940 down through July 15 of 1949?

Mr. Holland: Same objection.

The Court: Objection sustained.

Q. (By Mr. Alioto): What is the actual increase——

The Court: Now, just a minute. You have an idea of the ruling of the Court on this?

Mr. Alioto: Yes, I admittedly do. I have had [910] an idea, of course, for some time, if your Honor please. I am making a record on it. In other words, that is my only purpose.

The Court: I don't want you ignoring the order of the Court.

Mr. Alioto: I don't propose to. I think your Honor knows what I am doing here. I assume the Court would have followed its ruling. I am doing it only for the purpose of making a record because I have been in this situation before where some judge up above says, well, you didn't ask the question below; we didn't know what you had in mind. And I am doing it for that purpose, and I will do it very hurriedly from here on in, if your Honor please.

The Court: Very well.

Mr. Holland: May we have an objection to all this line of testimony so we won't need to interrupt with objections?

Mr. Alioto: You have interrupted all this time. It won't hurt me; it won't bother me.

(Testimony of Martin Wolf.)

Mr. Holland: Then if you don't mind, I will go right ahead.

The Court: Go ahead, you can make your objection.

Q. (By Mr. Alioto): Can you give us the actual growth of the Continental Ore Company in connection with the distribution of minerals handled by it and sold to the steel industry for the period of time January 1, 1940 to 1949?

Mr. Holland: Object, your Honor. [911]

The Court: Objection sustained.

Mr. Alioto: All right.

Q. Can you state for the record or state for the record, rather, Mr. Wolf, the actual growth of the Continental Ore Company for the period January 1, 1940 to July 15, 1949, in connection with the alloys sold, ferro alloys, generally sold to the steel industry?

Mr. Holland: Object, your Honor.

The Court: Objection sustained.

Q. (By Mr. Alioto): And, finally, and this will complete the record, I think, if your Honor please, so it will be abundantly clear as to what we have in mind— I am only doing it because I perceive this is what the Court told us to do in the Flintkote case, Judge, or I wouldn't be doing it.

State for the record, if you would, please, the actual increase in the business of the Continental Ore Company to the steel industry in connection with minerals sold the period of time from January 1, 1940 to July 15, 1949?

(Testimony of Martin Wolf.)

Mr. Holland: Object, your Honor.

The Court: Objection sustained. Exception allowed. They are different kinds. [912]

Mr. Alioto: There were different kinds of products in the Welch Grapefruit case. The Welch case was affirmed in the Flintkote case in this Circuit. It was cited with approval by the Court of Appeals of this Circuit. It is on that basis that we are making it.

Mr. Holland: We do not believe those cases are applicable.

Mr. Alioto: Just for the record at this point, in view of your Honor's comment about the procedure here, the cases upon which we are relying in these courts are, among others, first of all, Judge Sutherland's opinion in the Storey Parson's decision, which we have already called to your Honor's attention in 282 U.S. 555, a very able opinion of Mr. Justice Sutherland of the Supreme Court, which came out in 1920. It certainly is no recent case. It is no recent departure from established principles.

More recently there was the case in this Circuit of Flintkote versus Lysfgard, 246 Fed 2d 648, and Frey against Welch Grapefruit Company, 240 Fed 114, cited with approval in the Flintkote decision in this Circuit. We perceive this type of information is justified by those cases.

Incidentally, from your Honor's Circuit there is the case of Cinema Amusement Company versus Loew's in the Tenth Circuit. I believe the Tenth

(Testimony of Martin Wolf.)

Circuit covers Oklahoma. It is 210 Fed 2d 86, in which proof of damages was predicated upon the [913] showing of a comparable motion picture house. Your Honor is familiar with those cases.

The Court: Very familiar with them.

Mr. Alioto: I call your Honor's attention to the fact that we believe the case in your circuit in that connection would justify this type of proof.

Q. Now, Mr. Wolf, I will cover this ground just as rapidly as possible. What in general, Mr. Wolf, was the state of the vanadium industry in the period from 1942 to 1949, the business factors entering that industry during that period of time?

A. Well, the business was very tightly held by two companies——

The Court: A little louder, please.

The Witness: This business was tightly controlled by the two companies who are parties in this suit.

Mr. Holland: I object, your Honor. I do not think that is responsive to the question.

The Court: Objection sustained.

The Witness: There were two producers and no one else, and the two producers were Union Carbide and Vanadium Corporation of America.

Q. (By Mr. Alioto): Did those two producers sell at uniform prices? A. Yes. [914]

Q. Do you know how long that price remained uniform in the period around January 1, 1942?

A. To the best of my knowledge it is still uniform.

(Testimony of Martin Wolf.)

Q. Do you know how long prior to January 1, 1942, that price had remained uniform?

A. Only from records. I think it was way back, ten or twelve years.

Q. Do you know whether or not there was an increase in the cost of doing business in the period 1939 through 1949?

Mr. Archer: I object to the period prior to the time Mr. Wolf came to this country.

Mr. Alioto: He was in business prior to that time in Europe. The cost of doing business, whether there was an increase in the cost of doing business——

Mr. Archer: In Europe?

Mr. Alioto: I want to consider that as against the fact there was no price change in the period of ten or twelve years.

The Court: I am trying to find out what your question was.

Mr. Alioto: My question is whether there was an increase in the cost of doing business in the vanadium industry from the period 1939 through 1949.

The Court: You may answer the question.

The Witness: Yes, I believe there was. [915]

Mr. Alioto: It was a rather considerable increase, wasn't it?

A. Yes.

Q. Did that increase in the cost of doing business do anything to vanadium prices, the price of ferro-vanadium, or did that remain the same?

(Testimony of Martin Wolf.)

A. I think it stayed the same.

The Court: Well, now, would you regard it good business if one of the defendants who was producing vanadium oxide and he needed vanadium oxide to manufacture the ferro-vanadium, would you regard it as good business to sell that if he needed it in his business.

A. Not necessarily, no.

Q. (By Mr. Alioto): At the same time, if there was an abundance of supply of vanadium oxide available, do you believe that you should have been given an opportunity to buy it?

A. Very definitely so.

Q. Do you believe that you should have been given an opportunity to buy the ferro-vanadium, for example, produced by the Anaconda Copper Company — the vanadium oxide produced by the Anaconda Copper Company?

Mr. Holland: There is no showing here that they were not given such an opportunity, your Honor.

Mr. Alioto: It was a six-year contract, an [916] exclusive dealing contract. That is a pretty good showing.

Mr. Holland: I think we ought to call it red cake when we refer to it.

Mr. Alioto: I think the record on that has been made, if your Honor please.

The Court: It is your complaint here now, the principal complaint, that these defendants that

(Testimony of Martin Wolf.)

manufactured vanadium oxide would not sell to you when you needed it, you say.

The Witness: That is right, your Honor.

The Court: And they did use the vanadium oxide in the manufacture of the ferro-vanadium for steel.

The Witness: That is correct; that they used themselves.

Q. (By Mr. Alioto): Do you know whether or not these defendants together either produced or controlled almost 95% of all the vanadium oxide produced in the United States of America.

A. Yes.

Q. During the period from 1938 to 1945?

A. Well, I think it becomes clear in the government publications, if you just total them up.

Q. And there were just two companies with this control? A. That is correct.

Mr. Alioto: We have no further questions of this witness, if your Honor please.

Cross-Examination

Q. (By Mr. Archer): Mr. Wolf, how many times did you go to Chicago in the year 1942 when you commenced working for the Continental Ore Company?

A. I would say two or three times.

Q. When was the first time that you went to Chicago?

A. Fairly soon after my arrival. I can't pinpoint it. Possibly six or eight weeks after.

(Testimony of Martin Wolf.)

Q. Two months; that would be March of 1942.

A. That could be.

Q. When did the Apex Smelting Company quit making ferro-vanadium in its plant in Chicago?

A. I think it was in June, 1943, wasn't it? I think it was June, 1943. I am not sure.

Q. June, 1942, wasn't it?

A. You probably have the record. June, 1942.

Q. Actually, they made the Van-Ex about the last three months of the contract, didn't they?

A. That is correct.

Q. So that they had quit making ferro-vanadium prior to the time that they made the Van-Ex, is that correct? A. Yes.

Q. How many heats did you see run in that furnace at [918] Apex Smelting Company in Chicago?

A. I probably saw the heats run only the first or second time, but I know how these heats look. This is not the first time I have seen it.

Q. I know that. I realize you had seen it before. Don't misunderstand. I am just trying to limit the question to what you saw at Apex. So you say you saw them run one or two heats at Apex?

A. No, I would say I saw them run maybe three or four heats each day I was there, because these heats would run fairly rapidly.

Q. How many days were you there when they were running heats?

A. Probably two days each time that I was there, but I didn't go—let me say this—I didn't go

(Testimony of Martin Wolf.)

and look at something I knew perfectly well. I went to Apex mainly to discuss commercial matters with their management.

Q. Didn't you go thoroughly into the process they were using there?

A. That had been done by Mr. Leir before.

Q. So then you have no personal knowledge of the process they were using?

A. Oh, I do, because this is what we started out in France with.

Q. I know, but I am asking you what you personally [919] observed at the Apex plant in Chicago.

A. Let me put it this way: I know very well from my own knowledge that they were using our French process.

Q. I know, you say that, but do you know that from your discussions with Mr. Leir?

A. No.

Q. Or do you know that from what you observed?

A. From looking at what they did.

Q. On these occasions when you were in Chicago?

A. That is right, that is right.

Q. Actually, they had started their process sometime before you had gone to work for the Continental Ore Company, isn't that correct?

A. That is correct.

Q. And you were not present, then, at the time they were given the information as to how they

(Testimony of Martin Wolf.)

should run their heats and the amount of aluminum and the amount of this or the amount of that that should be used, is that correct?

A. That is correct.

Q. Actually, isn't your statement that they were using the same process based upon your assumptions as to what you had done in France and what you assumed they did over here?

A. It looked so much alike that I couldn't doubt that they—that they had invented another process which looked identical but was different. [920]

Q. Do you know what the impurities were, if any, or the ratio of impurities in the product of the Apex Milling Company?

A. It was a regular material that was produced in this country, except we had a very low carbon content because we didn't use the electric furnace. We guaranteed the carbon content, which was another advantage in the use of the ferro-vanadium that we produced there.

Q. Isn't one of the problems in using the aluminum thermic method getting aluminum with a low copper content? A. That is correct.

Q. And didn't you have some trouble in this country at Apex getting aluminum that had the low copper content?

A. From time to time these problems came up.

Q. You have testified that the Continental Ore Company sold vanadium products, Van-Ex and ferro-vanadium; they also attempted to sell a third vanadium product, did they not?

(Testimony of Martin Wolf.)

A. That was the vanadium silicide you are referring to?

Q. Vanadium silicide, and this they never sold prior to the time the complaint was filed, did they?

A. I believe that is correct.

Q. A few sample lots, but I mean the substantial bulk was never sold?

A. That was something new, vanadium silicide, at the time. [921]

Q. And it did not go over so well?

A. In fact, it was more of a by-product than an end product as far as we were concerned.

Q. In regard to the percentage used of ferro-vanadium in the period 1942 to, let us say, 1946, there was a problem, was there not, with the Apex product: it was 70% ferro-vanadium, or thereabouts, due to the fact that the military specifications during this time still specified what you might call the "old" or the "American" percentages which were made by the defendant companies; isn't that correct?

A. I didn't come up against that.

Q. You never came up against that?

A. I don't believe so. Maybe just a matter of tradition.

Q. I believe you have testified that there was some kind of arrangement that Continental Ore Company had with Apex Smelting Company when you commenced work for Continental Ore Company in January of 1942?

A. That is right.

(Testimony of Martin Wolf.)

Q. Was that arrangement in writing?

A. It was a written contract, yes.

Q. Do you have a copy of that?

A. Not on me.

Mr. Archer: Do you have one, counsel?

Mr. Alioto: Yes, I certainly do. I will be very happy to have it put in at this point. [922]

Mr. Archer: Do you object to it going in?

Mr. Holland: No, I don't object to it going in. I thought inasmuch as Mr. Leir negotiated the contract, perhaps it would require him.

Mr. Archer: Let it go.

Mr. Alioto: It is right here.

The Court: Did you negotiate the contract?

The Witness: No.

The Court: I think it would be better, if Mr. Leir is going to testify, to let it go in through him.

Mr. Alioto: So there won't be any question about it, here it is.

Mr. Archer: Why don't you keep it all together?

Mr. Alioto: Here it is all together.

Mr. Holland: I have a copy.

Mr. Alioto: I suggest that it go in. We have no objection to it going in.

Mr. Archer: Well, if Mr. Leir negotiated it, we will go into it then.

Mr. Alioto: O.K.

Q. (By Mr. Archer): I believe you testified, Mr. Wolf, that you also participated in obtaining the raw material, that is, the vanadium oxide for Continental Ore operations?

(Testimony of Martin Wolf.)

A. To an extent, yes.

Q. In the period 1942 to 1946, what company was the [923] largest supplier of vanadium oxide to Continental Ore, to Apex Smelting Company, or to the other companies with which they were connected?

A. I don't know the exact figures but I would say it was probably the Shattuck Chemical Company.

Q. What was that?

A. Shattuck Chemical Company.

Mr. Alioto: North Continental or the Shattuck Chemical Company?

The Witness: Yes.

Q. (By Mr. Archer): What was the next largest?

A. I think then came either Nisley or Blanding. We could look up the records.

Q. I was just asking for your best recollection. What do you think was the third largest? Either Nisley or Blanding, so what would be the fourth?

A. Did we have a fourth?

Q. Can you remember buying any vanadium oxide from anybody else?

A. We had negotiations with quite a few producers in the Colorado Plateau.

Q. Did you have any with Metals Reserve Company? A. We had with Metals Reserve.

Q. Did you buy any from them?

A. Yes, we did. [924]

Q. Anybody else?

(Testimony of Martin Wolf.)

A. Yes. Electromet.

Q. Did you buy any ferro-vanadium from anybody during the period 1942 to 1946, other than from Climax and Apex?

A. We might have bought a small lot of ferro-vanadium at one time. I don't know whether we bought it directly or through a broker.

Q. Did you buy anything from Electromet?

A. I believe we did. It may have been for export.

Q. Do you recall during the period 1942 to 1946 negotiating to buy vanadium flue ash? Do you know what vanadium flue ash is?

A. Yes, yes, from a man in Castleton, I believe, New York.

Q. Johnson-Whitney?

A. Johnson-Whitney, yes. They collected it from stacks of steamships that were burning oil, which contained a slight percentage of vanadium. I believe that was it.

Q. Later on you had a contract with the Imperial Paper and Color Corporation?

A. Yes.

Q. They processed bichromate ores, did they not?

A. No, they processed chrome ores. They made bichromate out of that.

Q. As a by-product of that they had vanadium oxide, did they not? [925]

A. That is correct, off-grade mostly.

(Testimony of Martin Wolf.)

Q. They sold it to the steel companies, didn't they? A. Yes.

Q. Allegheny Ludlum Steel Company?

A. Yes, but it was off-grade.

Q. One of those customers that you mentioned here? A. But it was mostly below grade.

Q. During the time that Continental Ore had a contract with the Imperial Paper and Color Corporation, they had an apparatus up there for making what we call fused oxide, taking the raw material such as the proceeds from the chrome ore process and turning it into the fused black oxide, and their equipment up there could also do the same for vanadium flue ashes, couldn't it?

A. I don't recall that.

The Court: We will take a ten-minute recess.

(Recess.)

Q. (By Mr. Archer): Mr. Wolf, do you recall that in addition to the Castleton Manufacturing Company, the Brandeis Goldsmith Company also offered vanadium-bearing flue dust from Peruvian sources? A. I have no recollection.

Q. I show you a memorandum of yours dated January 29, 1945, together with a copy of a letter from you to Imperial Paper & Color Corporation dated March 3, 1945, and ask you whether [926] you can identify those (handing to witness).

A. (Witness examining): Yes, sir.

Mr. Alioto: No objection.

Mr. Archer: As defendants' exhibit next in order I offer a memorandum of Mr. Wolf dated January

(Testimony of Martin Wolf.)

29, 1945; and a letter dated March 3, 1945, from Mr. Wolf to Imperial Paper & Color Corporation.

The Clerk: Defendant Union Exhibit 3-F admitted and filed into evidence.

(Whereupon the memorandum and letter referred to were received in evidence as Defendant U's Ex. 3-F.)

Mr. Archer: The memorandum states, Mr. Wolf —it is entitled "Brandeis Goldsmith" — I think that's a mistake, isn't it? Do you know the company? A. Yes, I know them.

Q. Is that right?

(Reading.) "Mr. Green of Brandeis Goldsmith called on the 27th.

"Samples of vanadium ash are on their way. They have four tons ready at the present time, which show 15.72 V_2O_5, 2.47 Ni."

Those are the percentage figures, are they not, Mr. Wolf? A. That's right.

Mr. Archer: (Reading.) "15.72% V_2O_5. [927] He said that of course they would like to have payment for the nickel, but he realizes that it might be detrimental to our process.

"I told him that this was something that would have to be worked out. Maybe we can return the nickel to them in some form or other.

"They expect to have 30 tons per month of similar material, which we could have, if we can agree on price. He wanted to know whether this is too

(Testimony of Martin Wolf.)

much for us, but I told him that it is not and that we are very much interested in the material."

Mr. Wolf's letter to the Imperial Paper & Color Corporation——

Q. This was the company with whom you had a contract to make ferro-vanadium, was it not, Mr. Wolf? A. That's right.

Mr. Archer: (Reading.) "Dated March 3, 1945, Mr. A. F. Brown, Re: Peruvian Vanadium Ashes."

"Dear Mr. Brown:

"We have your letter of the 27th and wish to say that the producer of these ashes is very reliable and has the equipment available to make at least 30 tons a month, because they produced that much previously.

"They have not been in operation for a couple of years because of scarcity of labor, but with the shift [928] in the program of Metals Reserve's foreign purchases, they can start out again and make these vanadium ashes.

"A member of our organization will soon make a tour of the South American countries, and he will personally contact these producers. We will be able to give you some more definite news at that time. This trip is scheduled for early April, at which time we suppose you will give us a complete picture regarding the sample we sent you."

Q. Do you recall whether you ever purchased any of these vanadium ashes from Peru?

A. I don't believe so. I think there was an objec-

(Testimony of Martin Wolf.)

tion because of the nickel; it presented some problem, technical problem, I believe.

Q. Do you recall when you came here in 1942 and through the period 1949 that there was a source of vanadium in the lead vanadate ores?

A. That is right.

Q. Do you recall that the Metals Reserve Company purchased a large amount of the African lead vanadate ores from the so-called Otavi Mine?

A. That's right.

Q. I show you now a letter dated January 26, 1944, to the Imperial Paper Company regarding lead vanadate and flue dust and ask you if you can recognize that. [929] A. Yes, sir.

Mr. Archer: As defendants' exhibit next in order I offer a letter from the witness to Imperial Paper & Color Corporation dated January 26, 1944.

The Clerk: Defendant Union's Exhibit 3-G admitted and filed in evidence.

(Letter 1/26/44, Wolf to Imperial Paper admitted in evidence as Defendant U's Exhibit 3-G.)

Mr. Archer: January 26, 1944, was just after Continental Ore had made its agreement with the Imperial Paper & Color Corporation, was it not?

A. I believe that's correct.

Q. Do you recall that that agreement also provided, among other things, that you might provide flue dust for the Imperial Paper operation?

A. I don't recall that.

Mr. Archer: This letter is addressed to Impe-

(Testimony of Martin Wolf.)

rial Paper Company from Continental Ore Company, attention Mr. A. F. Brown, "Lead Vanadate."

"Gentlemen:

"My trip to Washington last week was delayed since I could not make all the appointments I wanted to; and therefore I had to postpone it until yesterday."

Mr. Alioto: Excuse me, Mr. Archer, if you don't want to read the entire thing, we have no objection about that. [930] Just read any portion you want to, so we will get on with this thing.

Mr. Archer: (Reading.)

"I saw the competent gentlemen in Metals Reserve and WPB and they confirmed that the sample of 25 pounds of the South African lead vanadate has been ordered shipped and is most probably in transit.

"I further learned that about 900 tons of this material will arrive early in February, and in this connection we would very much like to discuss an idea with you which we believe would be of great importance.

"We wonder whether you intend to be in New York one of these days, or early in February, so that we may discuss this matter in detail."

And then "Flue Dust."

"Mr. Johnson was in our office yesterday and offered us a lot of 8 to 9 tons of flue dust of 13.11% V_2O_5 content."

(Testimony of Martin Wolf.)

Q. Mr. Johnson had this plant up at Castleton, New York? A. Yes.

Mr. Archer: (Reading.)

"This would correspond to about 2200 lbs. of V_2O_5 contained, and it is our opinion that we should buy this lot for you at the price of 45c per pound of V_2O_5 so that you can start your tests on an industrial [931] scale without further delay.

"We will shortly send you a description of the process for treating lead vanadate and you will find that the kiln you have and which Mr. Leir saw when you showed him your equipment, can most likely be used for the treatment of lead vanadate and flue dust, interchangeably. This, of course, would make things very simple for you."

Q. You also recall that there were domestic sources of vanadium in not only the lead vanadate ores, but in what we call the copper ores or the cuprodescloizite ores. A. Yes.

Q. I show you a letter dated October 9, 1944, from Mr. Wolf to Imperial Paper & Color Corporation, and invite your attention to the handwriting on the side (handing to witness).

A. (Witness examining): May I make a comment on these?

Q. Sure.

A. I don't know what other correspondence you are going to show me for identification, but most of the ores we had were for individual lots where there was very little chance of continuing supply and then there were some, like these particular complex

(Testimony of Martin Wolf.)

ores, where there was a problem of treatment, and it is always difficult for a manufacturer such as Imperial Paper to gear their production of a finished product to different kinds of raw materials that come in at different [932] times. The ideal for any plant is to have a steady flow of raw materials of the same kind, and all these various lots that were offered to us just did not correspond to this ideal solution.

Now, of course we cannot ask for ideal solutions, but I would say that these ores always posed a technical problem which we had not in our hand to solve and that is why we did not buy most of these ores.

Q. Well, the processing of all ores is a technical problem, isn't it?

A. Right, but if you start with a raw material which is fairly uniform from day to day, you can build up a production; but you cannot use one time cuprodescloizite ore and the next time a lead vanadate and the third time something else and put it all in the same plant. It doesn't go.

Q. Well, the flue dust, though, is very easily processed.

A. It is very easily processed but there you have a very irregular source because it depends on where this flue dust is taken out of the ships, and you just can't have a source which is on the high seas and hope it comes into port one of these days.

Q. Well, the Castleton plant operated fairly regularly up to about——

A. But they had to bid on the flue dust with

(Testimony of Martin Wolf.)

their steamship companies. They had to bid on it. There was no [933] guarantee that they would get this material every time. There might be someone else in Europe who might have bought it.

Q. Well, what about the flue dust that was offered to you from Brandeis Goldsmith, they had just opened up a new source near the end of the war. A. That was vanadium ashes.

Q. Vanadium ashes. A. From Peru.

Q. From Peru.

A. We were a little scared of that, although we don't appear to be in our letter to Imperial, because we wanted to encourage Imperial to do this. But we were a little scared because it was well known that Vanadium Corporation quit producing in Peru and I don't quite know why we, who were much smaller, should start in Peru and consider this a steady source of supply when Vanadium Corporation did not continue their production but, rather, relied on the Colorado Plateau, to be supplied by Electromet.

Q. When did Electromet Corporation quit in Peru? A. I think in '33 or so.

Q. And they haven't produced from Peru since about '33?

A. I don't know their business that exactly, but I believe that is correct.

Q. Well, to pinpoint it, when you came to this country in '42, which is, I suppose—— [934]

A. There wasn't any.

(Testimony of Martin Wolf.)

Q. They weren't producing from Peru, the Peruvian mine? A. Not to my knowledge.

Q. From '42 to '49.

A. Not to my knowledge.

Q. What does this "Navarro Mine" refer to (Exhibit 3-H).

A. This is a source of the ore.

Q. Is that in the United States or Mexico?

A. I believe this is the United States.

Mr. Archer: As defendants' exhibit next in order I offer a letter from the witness to Imperial Paper & Color Corporation dated October 9, 1944.

The Clerk: Defendant U's Exhibit 3-H admitted and filed in evidence.

(Letter, 10/9/44, Continental to Imperial paper received in evidence as Defendant U's Exhibit 3-H.)

Mr. Archer: This is to Mr. A. F. Brown.

"We are sending you, by Railway Express, a box containing two bags, one of cuprodescloizite, one of lead vanadate.

"We would suggest that you examine this material closely and let us know whether you could use this raw material for the production of V_2O_5, because it can be had in considerable quantities."

Q. Do you recall that there was another processer of chrome ores in the United States besides the Imperial Paper & Color Corporation who was producing vanadium oxide as a by-product?

A. Natural Products Refining.

Q. And I show you a copy of a letter to Impe-

(Testimony of Martin Wolf.)

rial Paper regarding the Natural Products Refining Company and ask you if you can identify it.

A. (Witness examining): Yes.

Mr. Archer: I have about four letters on this in addition to that one—if you want to look at these—I think they are all the same.

A. (Witness examining): What was the date on that one?

Q. This is August 7, 1944. I think these follow all along.

A. (Witness examining): Yes, sir.

Mr. Archer: As defendants' exhibit next in order I offer letters from the witness to Imperial Paper & Color Corporation, dated August 7, 1944, November 14, 1944, March 28, 1945, April 23, 1945, and August 11, 1948.

Mr. Alioto: No objection.

The Clerk: Defendant U's Exhibit 3-I admitted and filed in evidence.

(Whereupon the letters referred to were received in evidence as Defendant U's Exhibit 3-I.) [936]

Mr. Archer: The first is dated August 7, 1944, from the witness to Imperial Paper & Color Corporation "Re: Red Cake, Natural Products Refining."

"They" refers to Natural Products Refining——

"They have accumulated about 5,000 pounds of red cake containing about 70% V_2O_5, and are producing this red cake at the rate of about 100 pounds per day.

(Testimony of Martin Wolf.)

"They leached part of the material in stock and brought the V_2O_5 content up to 85%

"They have no fusion furnace and we believe that in view of this fact we may be able to obtain this red cake at 85c per pound V_2O_5 contained.

"The freight to Glens Falls would be less than 1c (as a matter of fact 7/10 of 1c). Although this would not be a big business, there would still be some profit, if you were to take this red cake and fuse it along with your own. The fact that you would use your furnace more intensively might also add a little to this profit. However, the main reason why I believe it a good idea to take this production up is to eliminate it from the market. In accordance with our telephone conversation this morning, we will await word from you sometime this week as to whether you will allow us to go ahead and try to buy this material for you at 85c per pound of V_2O_5." [937]

Q. Then you subsequently bought several shipments, as indicated in the correspondence here, isn't that correct, Mr. Wolf, from Natural Products and sent it up to Imperial's plant?

A. We wanted to get it in our hands rather than in others.

Q. I understand. I notice in the last one it refers to Webb Harrison. Webb Harrison was one of the sales agents for the Natural Products Refining Company?

A. I believe so. That is correct.

Q. Actually, there came a time when the Impe-

(Testimony of Martin Wolf.)

rial Paper & Color Corporation refused to buy anymore from the Natural Products Refining Company, didn't they? Do you recall that?

A. I don't recall it.

Q. Don't you recall they got into a patent fight?

A. Oh, yes, I think—yes, I think that was it.

Q. I now show you a series of correspondence from Imperial Paper & Color Corporation to Mr. Wolf, dated December 1, 1947; another letter dated December 29, 1947 from Imperial Paper & Color Corporation to Mr. Wolf; and Mr. Wolf's reply dated December 31, 1947—and ask you whether you can identify those.

A. (Witness examining): Yes, sir. [938]

Mr. Archer: As Defendants' Exhibit next in order I offer the three letters just shown the witness.

Mr. Alioto: No objection.

(The letters referred to were thereupon received in evidence and marked Defendant Union's Exhibit 3-J.)

Mr. Archer: This is dated December 1st, 1947, from Imperial Paper Company to Mr. Wolf:

"You will remember about ten days ago we told you that we had on hand some Vanadium Oxide that analyzed about 15% metallic iron and 75.7% V_2O_5. You asked us to send you a sample representing this material, and we are forwarding to you today about one pound of this fused Vanadium Oxide X-521, representing approximately 2600 pounds, which is batch U-15074. It is our under-

(Testimony of Martin Wolf.)

standing that you will submit this to one of your clients, and if you can obtain an order on it, we will invoice it to you at $1.10 per pound, it being our understanding that you will offer it to your customer at the present market of $1.20 per pound."

December 29th, again from the Imperial Paper to Mr. Wolf:

"About a month ago you will recall we sent you a sample of Fused Vanadium Oxide, representing 2600 [939] pounds, which we had on hand and which we wished to dispose of.

"We would like to get some action on this matter, and are writing to ascertain if sufficient time has elapsed for you to get a reaction from your prospective customer, and if so whether or not the reply is favorable. The point is that we are not trying to high pressure you, but we do want to get some action on this material, and if your customer is not interested, then we have several other leads we wish to pursue."

A letter from Mr. Wolf to Mr. A. F. Brown, General Manager, Pigment Color Division, Imperial Paper and Color Corporation. Re: Fused Vanadium Oxide:

"Our customers are not too keen on the change-over from Ferro-vanadium to fused Vanadium Oxide although they had used the oxide during the war.

"They have not definitely declined either but during this holiday period we cannot do very much

(Testimony of Martin Wolf.)

useful pushing and we feel that if you have any other leads, we suggest you go ahead.

"If our customer should decide eventually to use this material, we will just have to take our chances on its availability."

Q. Now, when you refer here to the fused vanadium oxide [940] that they had used during the war, do you refer to Van-Ex?

A. Not necessarily.

Q. Did you sell just plain vanadium oxide during the war?

A. As I mentioned before, some of the companies used plain vanadium oxide if they could get it to throw into their furnaces, not regarding or not caring too much in that war period whether they had a good recovery out of it, or whether it was economical or not. This material is standard material. It was not V_2O_5. Perhaps you would permit me to make another comment.

Q. Go ahead.

A. Again I want to bring out the continuity that we had that was missing in this business so far as we were concerned. Our business is not different from any other business, whether it is a store, a workshop, or anything else. If you are closed down part of the time, you won't have any customers.

So we had a sporadic supply. Once we had it, once we didn't. So it was very difficult for us to sell whenever it happened that we had some material available for sale, and that is partly the answer to this, besides the fact that this is offgrade material.

(Testimony of Martin Wolf.)

Q. But it was the material which was used by Allegheny Ludlum Steel Corporation, was it not?

A. I don't know where it went ultimately.

Q. Weren't you told by Imperial that they were supplying [941] Allegheny Ludlum with their fused vanadium oxide? A. I don't know.

Q. I will show you a letter dated April 9, 1945 to Imperial from Mr. Wolf, and ask you if you can identify it? A. Yes.

Q. Does that refresh your recollection?

A. It does, but mayn't I also ask that you read the letter?

Mr. Archer: All right.

Mr. Alioto: We have no objection to it.

(The document referred to was thereupon received in evidence and marked Defendant Union's Exhibit 3-K.)

Mr. Archer: This is dated April 9, 1945 from Imperial to Mr. Wolf:

"Replying to your letter of April 6th regarding a ton of V in the form of Fused Vanadium Oxide, we are sorry to tell you that we do not have any of this material on hand at the present time. We have been producing small quantities, but we made a shipment to Allegheny Ludlum a few days ago, and it will be six to eight weeks before we have any more available, because our labor situation is so tight, that processing of anything which we can defer is being handled on that basis at the present time, as we are shorter of men now than we have been at any time since the war started." [942]

(Testimony of Martin Wolf.)

A. So here you can see again it was an on and off proposition. You couldn't even get one ton of material from them.

Q. Let us talk about the Otavi ores which Metals Reserve had on hand. How many tons of those were there that were offered to you in 1944?

A. The letter that you had shown to me before indicated that they were expecting 900 tons to come in.

Q. I show you a memorandum entitled "Trip to Washington, Tuesday, January 25, 1944," and ask you whether you can identify that?

A. Yes, sir.

Mr. Alioto: No objection.

Mr. Archer: I offer this as defendant's exhibit next in order.

(The document referred to was thereupon received in evidence and marked Defendant Union's Exhibit 3-L.)

Q. Mr. Wolf, this is a memorandum of a trip you made to Washington on January 25th, 1944, about the time the Imperial Paper contract was made between Continental and Imperial Paper, is that right? A. Correct.

Q. "I saw Mr. Mirel—" Who was Mr. Mirel?

A. Mr. Mirel at the time was, I believe, an official of [943] the RFC.

Q. "* * * and Mr. E. L. Murphy (Room No. 1077) (Metals Reserve—Executive 3111—Extension 861), as well as Mr. Simon Strauss (Room 1240) Vice-President of Metals Reserve.

(Testimony of Martin Wolf.)

"There are about 700 to 800 tons of the Otavi lead vanadates in this country stored at Bridgeville. A small part has been shipped to the Cannonsburg plant of the Vitro Mfg. Co. who are treating this material.

"They expect another boat with about 900 tons, to arrive on February 9.

"They do not know yet where to store these 900 tons. It depends upon where the boat will arrive.

"I did not mention Imperial Paper, but told them that we might need this material at Langeloth but more likely in Upstate New York.

"Mr. Strauss said that they again have a cheap storage space at Bethlehem and if the boat arrives at Baltimore, they would probably store it at Bethlehem, otherwise they may decide in favor of Bridgeville since they do not have to pay any charge there except in and out handling.

"He confirmed that Vanadium Corporation of America has no option on this material nor has anybody else for that matter. [944]

"Mr. Strauss mentioned without consulting his papers that the price for this lead vanadate is 40c per pound of V_2O_5 contained basis Ledoux analysis. The lead is being returned to Metals Reserve in the form of a sludge containing about 40% Pb.

"Mr. Mirel, however, was astonished at that price because he looked up the contract with Vitro and found that they only paid 25c per lb.

"Mr. Strauss agreed to send us the 25 lb. sample but he has to get approval from the WPB for it.

(Testimony of Martin Wolf.)

He had sent a corresponding request to Mr. Hatch. Upon calling Mr. Hatch, I found out that Mr. Metzger handles it and upon calling Mr. Metzger, it appears that he has not yet received this request but he will approve it the moment it reaches his desk.

"Metals Reserve will bill us for these 25 lbs. and maybe at that time they will find out whether the price is now 40c instead of the 25c Vitro is paying.

"If not, that is, if they invoice us 40c we can always go back and tell them that Vitro is paying the lower price.

"Mr. Strauss regretted that we could not make up our minds in time before the February boat arrives, so that he could ship it to us right away if we [945] wanted it.

"The material they have in stock averages 11.2% V_2O_5."

Q. So at that time they had 700 tons to 800 tons in stock? A. Right.

Q. And 900 tons coming. That is 1600 tons, and this ore averaged about 10 per cent roughly V_2O_5. That would have supported a considerable operation, wouldn't it, Mr. Wolf?

A. That would have been 160 tons of V_2O_5 or roughly 80 tons V, which is much too small to build a plant to treat this particular material, especially since there was a dispute as to the price that would have been charged, because they got it at 25 cents and we were offered 40.

Q. That was by Metals Reserve?

A. That is correct.

(Testimony of Martin Wolf.)

Q. You knew that there was other ore available where that came from, didn't you?

A. If it would come here. It might have gone to Europe, because the Europeans were starved for vanadium from time to time because it was so tightly held here.

Q. Didn't you represent to the Imperial Paper and Color Corporation that this would be a safe basis for operation, this lead vanadate ore from South Africa?

A. They felt that at the time. [946]

Q. Didn't you feel that?

A. Well, let me finish this.

Q. Go ahead.

A. Imperial Paper had, of course, questioned us very thoroughly as to the sources of raw material before they entered into that contract with us, and in view of our experience, of our being eliminated from the Plateau by the two companies, the defendants in this case, they felt very insecure about going into this business because they felt we had no raw material source.

Q. Is this what you told them, that you had been eliminated from the Plateau?

A. More than told them. We demonstrated it.

Q. You mean the Continental Ore had been eliminated from the Plateau?

A. Continental Ore, Apex and everybody else who was involved in any phase of vanadium except the two companies, Union Carbide and Vanadium

(Testimony of Martin Wolf.)

Corporation, because they were the only ones left over.

Q. Did you own any mines on the Plateau?

A. No.

Q. Did you buy any ore on the Plateau?

A. We did.

Q. Ore?

A. No, not ore; concentrates. [947]

Q. You mean it was these other people who had mines and who bought ore on the Plateau that you are referring to? A. That is correct.

Q. I show you a letter dated January 29th, 1944 from yourself to Imperial Paper and ask you whether you can identify it? A. Yes.

Mr. Archer: I offer this as Defendant's Exhibit next in order.

Mr. Alioto: No objection.

(The document referred to was thereupon received in evidence and marked Defendant Union's 3-M.)

Q. By the way, you referred to the Otavi ores, that they might be sold in Europe. Prior to the war, these had been the source of the vanadium industry in Germany, were they not?

A. That is correct. They were German owned before the First World War.

Q. But then it was a substantial source of vanadium?

A. I do not believe it was a substantial source of vanadium for this country.

Q. For this country?

(Testimony of Martin Wolf.)

A. I don't believe so, no. I don't think these came, in peace time, that these came here. I think this was preclusive buying on the part of the American authorities not to let them [948] fall into the hands of the enemy, so there was no guarantee that they would continue unless commercial arrangements could be made.

Q. The time we are talking about is January 1944; they had about 1600 tons here in this country?

A. That is correct.

Q. This is dated January 29, 1944, from Mr. Wolf to Imperial Paper and Color Corporation. This was at the time of your contract with Imperial Paper, was it not? A. 1944?

Q. January 29th. It was just signed, wasn't it?

A. Yes.

Mr. Archer: (Reading.)

"Re: Lead Vanadium from South Africa.

"We have your letter of January 21 and wish to say that the figures on Page 635 of the Minerals Yearbook, 1940, Revision of 1939, refer to metric tons of metallic vanadium (V) contained.

"Therefore, total shipments from Southwest Africa, listed as being 514 metric tons V contained, correspond to 1,132,856 pounds of V contained, which is roughly 95,000 pounds of metallic V per month.

"The Otavi material alone at the present rate of production amounts to:

"200 tons per month of 9% V_2O_5 average, equaling 36,000 lbs. V_2O_5 or 20,000 lbs. of V per month.

(Testimony of Martin Wolf.)

"There are other sources in South Africa, as well as in Northern Rhodesia, so that this origin alone should be a safe basis for operations.

"This does not take into account any flue dust to be obtained locally here, nor any other vanadium-bearing materials from South America, particularly Peru and from Central America, particularly Mexico."

Q. Now, in the year 1944 Imperial experimented with the lead vanadate and they perfected a process for recovering vanadium pentoxide from the lead vanadate ores, didn't they?

A. You probably can show it to me. I don't recall it.

Q. A letter dated December 4th, the end of the year, from yourself to Mr. A. F. Brown.

A. Yes, sir. It doesn't say that they have perfected a process. That seems to be an assumption.

Q. That was your assumption?

A. I would assume so from the context there. I think they were working at it and they had made progress.

Mr. Archer: I will read the letter. I offer this as Defendants' Exhibit next in order.

Mr. Alioto: No objection.

(The document referred to was thereupon received in evidence and marked Defendant Union's Exhibit 3-N.)

Q. (By Mr. Archer): This is December 4, 1944, [950] approximately one year after your trip to Washington, correct, Mr. Wolf? A. Yes.

Q. It is to Mr. A. F. Brown. You have labeled

(Testimony of Martin Wolf.)

it "Confidential." Is there any particular significance in that?

A. From the context I just read it would appear that it was a suggested letter that we wanted to exhibit to keep the matter open, so since it was not a spontaneous letter but was supposed to be a spontaneous letter, we wrote "Confidential" on it.

Q. It is as follows: "Re: Metals Reserve's Stock of Lead Vanadate.

"Dear Mr. Brown:

"A friend of ours at Metals Reserve suggested that since we cannot make further purchases of the Otavi lead vanadate at the present time, we should write something to them in order to keep this matter open in their files. You know that we are urging them not to sell it to any other parties, but to keep it until you are ready to proceed.

"Such a letter, therefore, should point out that your process for recovering vanadium pentoxide has been perfected and that you are eager to go ahead. However, things have been held up because of the present manpower shortage, and as soon as there is a [951] change in the present labor situation, you intend to proceed with the vanadium production on a substantial scale.

"Of course, this letter should not mention anything about Metals Reserve, but should just be a spontaneous letter to us."

So you would not have shown Metals Reserve a letter from Imperial Paper which stated that Imperial Paper had perfected their process for re-

(Testimony of Martin Wolf.)

covering vanadium pentoxide if the statement were not true, would you, Mr. Wolf?

A. No, certainly not. There are stages in developing a process. They probably at that time had developed a process in the laboratory and not even a pilot plant or a regular plant, so before you go to the point of producing you still have to make sure that whatever you have developed in the laboratory is really going to be an economical process.

Q. That is what you mean when you state:

"Such a letter, therefore, should point out that your process for recovering vanadium pentoxide has been perfected and that you are eager to go ahead."

A. They were eager to go ahead but they didn't.

Q. Now, I show you a letter dated April 18, 1945, regarding some of the South American sources and, again, this Otavi lead vanadate material, to Imperial Paper and Color Corporation, and ask you whether you can identify that?

A. (Witness examining) Yes, sir.

Mr. Alioto: No objection.

Mr. Archer: Offer letter dated April 18, 1945, from the witness to Mr. Brown of Imperial Paper and Color Corporation.

The Clerk: Defendant U's Exhibit 3-O admitted and filed in evidence.

(Whereupon, a copy of letter from Continental Ore Company to A. F. Brown, Imperial Paper and Color Corporation, dated April 18,

(Testimony of Martin Wolf.)

1945, was received in evidence and marked Defendant Union's Exhibit 3-O.)

Q. (By Mr. Archer): This was approximately a year and three months after you made your contract with Imperial Paper, isn't that correct?

A. April, '45? [953]

Q. April, '45.

A. Yes. We still had not sufficient raw material, as you can see.

Mr. Archer: (Reading.)

"Dear Mr. Brown:

"We have your letter of April 13th, and perfectly understand your point of view, both with regard to the difficulty of determining the value of this material, as well as to the principle of offering a price to the producer rather than have him submit a quotation.

"However, we are dealing with South America and things are a little different there.

"As you know, the mine stopped producing this material some time ago, and what they want to know is what price we could pay, so that they can estimate whether they can profitably resume this production. Of course, they could just as well find out what their present labor and mining costs are and tell us what minimum price they require. However, in South America people take things very easy, and in general we found that we can do business with them only if we follow their methods. We have done so and our experiences in South America to date have been very pleasant. [954]

(Testimony of Martin Wolf.)

"Regarding the general question of raw material, we believe that the Otavi lead vanadate can be supplied in considerable quantities after the war regularly. Still, it would be advisable to look for two or three additional sources of raw material, as a a general policy of not relying on one source. If you agree with this view, then we believe that a quantity of 30 tons per month of these ashes would be quite an advantage, or to put it differently, three more sources supplying 30 tons each would be a sufficient basis on which to operate a plant.

"Therefore, we feel that if at all possible, you should try to find out the value of these vanadium ashes, so that we can give instructions to our man, when he reaches Peru, to conduct some preliminary negotiations with these people."

Q. Now, do you recall, Mr. Wolf, that after the war your Paris office did, in fact, obtain substantial shipments of the lead vanadate ores?

A. No. But I hope you can refresh my memory.

Q. This is a letter from a Mr. Mirel of the Continental Ore Company to Mr. A. J. Strod, Vitro Manufacturing Company, February 1, 1947.

A. (Witness examining) Well, these were individual lots, I take it. [955]

Q. Well, do you know?

A. It looks like it. It says, "* * * 50,000 pounds Lead Vanadate Ore containing 19% * * *" Twenty per cent would be 10,000 pounds, and that was all—plus 100 tons——

Q. Was that all you had in your——

(Testimony of Martin Wolf.)

A. It says here that this is—it doesn't say anything about continuing supplies, and you see in the other letter that you just read that we were always concerned about continuing supplies. We had to go very far afield, in South America and to South Africa, while there was an abundance of raw materials right here in the plateau which we couldn't touch. This is the whole point of this correspondence.

Q. Well, there were 600——

Mr. Alioto: I have seen it, Mr. Archer, and we have no objection to putting it in.

Mr. Archer: Offer this as Defendant's exhibit next in order.

The Clerk: Defendant U's Exhibit 3-P admitted and filed in evidence.

(Whereupon, copy of letter from Continental Ore Company to A. J. Strod, Vitro Mfg. Company, dated February 1, 1947, was received in evidence and marked Defendant Union's Exhibit 3-P.)

Mr. Archer: The 300 tons of Lead Vanadate Ore that the Metals Reserve imported during the war was right here in this country, wasn't it? [956]

A. We were very much in favor of the Imperial taking them, but it was their money which would have been involved in building a plant, and we had no guarantee that after the war the supply would continue.

Q. But Vitro had processed part of those ores prior to that time?

(Testimony of Martin Wolf.)

A. Vitro had a different setup entirely. Vitro handled on a smaller scale a great number of complex ores, and they had equipment in their plant whereby, perhaps, by combining certain pieces of equipment they could make arrangements to refine certain ores which we could not do without buying the equipment. It is a different story entirely, and it is in much smaller quantities that Vitro would get it, different than the equipment we would have needed to support irregular operation into the future.

Q. Well, when you speak of "we," you don't mean Continental Ore Company?

A. When I speak of "we," I speak of us and our associates, in this particular case Imperial Paper.

Q. You had no machinery yourself to process it?

A. That's right. That's exactly what I'm saying, yes.

Q. Yes. This letter is dated February 1, 1947, to Mr. Strod, by Joel A. Mirel:

"Re: Lead Vanadate Ore

"Dear Mr. Strod: [957]

"Our Paris office informs us that they are in a position to furnish about 50,000 pounds Lead Vanadate Ore containing about 19.20% V_2O_5 and about 71.65% Lead, and also 100 tons containing about 13.21% V_2O_5 and about 65% Lead. We would thank you to let us have your best proposals for the

(Testimony of Martin Wolf.)

above, together with your general terms and conditions of purchase.

"We thank you for your prompt consideration of this matter."

Q. Was this the same Mirel we talked about a few minutes ago, who was——

A. That's right.

Q. What was he, in the War Production Board?

A. No, he was with RFC—Reconstruction Finance, I think.

Q. And then he finally went with the Continental Ore Company? A. That's right. [958]

* * * * *

Wednesday, June 11, 1958, 10:00 O'Clock A.M.

(The witness Martin Wolf thereupon resumed the witness stand.)

Cross Examination—(Resumed)

Q. (By Mr. Archer): Mr. Wolf, yesterday in your direct examination you were asked about the prices of these various vanadium products, you recall? A. I do.

Q. And you referred to the price of your Van-Ex in terms of vanadium? A. Correct.

(Counsel reproducing tabulation on blackboard.)

Q. Now, the "prices in terms of vanadium." The first you have is the ferro-vanadium. That is the alloy itself? A. Correct.

Q. It is the vanadium with the iron. And I be-

(Testimony of Martin Wolf.)

lieve you testified that that was in the $2.70 to $2.90 range for the period? A. Correct.

Q. And that's per pound "V" or vanadium?

A. That is right.

Q. The next was Van-Ex, which is V_2O_5 plus—plus your ingredients in that. That is what I indicate by the "plus"? [960] A. That's right.

Q. Now, this is the symbol, V_2O_5, for the vanadium oxide in the Van-Ex? A. Correct.

Q. It has this oxide in it which is removed when you get the ferro-vanadium? A. Yes.

Q. So you would call that in chemistry, I believe, FeV—showing no oxygen? A. No.

Q. No.

A. No. There is no chemical symbol for it, actually.

Q. All right. There's probably no chemical symbol, but there would be no oxygen in it?

A. That is correct.

Q. And the price in terms of "V" was, I believe you said, $2.40? A. Right.

Q. Now, one of the other products is what is called fused black oxide, which again is just a plain V_2O_5, is that correct? A. That is correct.

Q. The price of this is generally quoted in terms of vanadium oxide, is it not, at $1.10?

A. It is.

Q. But you can also quote it in terms of "V," if you wanted to? [961]

A. Well, wait a minute. As far as the relation-

(Testimony of Martin Wolf.)

ship between Union Carbide and Vanadium Corporation is concerned, it was quoted at 80c.

Q. Well, I'm talking about the $1.10 price.

Mr. Alioto: We will object to that——

Q. (By Mr. Archer): Do you know of your own knowledge what the price was between Union Carbide and Vanadium Corporation?

A. We heard that, yes.

Q. Do you know of your own knowledge?

A. I heard of it of my own knowledge.

Q. You heard it but you don't know?

A. Yes.

Q. So it is just something that you heard?

A. When you speak of price for fused vanadium oxide at $1.10, this was not a price applicable all over to all the customers.

Q. Well, sometimes you even bought vanadium oxide at $1.10, didn't you?

A. At $1.00, $1.10, $1.15.

Q. $1.03?

A. I just object to the statement "that this is the price."

Q. Oh, I see. Well, let's assume, then, $1.10. I just want to convert it into pounds "V."

A. All right. [962]

Mr. Alioto: If your Honor please, it assumes $1.10 when the record shows that the price charged to the Vanadium Corporation of America was 80c.

The Witness: That is what I meant.

Mr. Alioto: That's the whole point. That is a matter of record in this evidence.

(Testimony of Martin Wolf.)

Mr. Archer: Certainly not since Mr. Wolf came to the United States.

The Court: Proceed with the cross examination.

Q. (By Mr. Archer): So assuming for my question here that it is $1.10—— A. Assuming, yes.

Q. ——per pound V_2O_5, you could convert that to quote it in terms "V" by—well, you divide by .56 or—— A. Or multiply by 178.

Q. Or multiply by 178. So it would be 178—well, it would be by 11—— A. Yes.

Q. ——it would be $1.96? A. Probably.

Q. You want to check that?

A. I will (making calculations). $1.958—$1.96.

Q. So that we know we are talking about the $1.10 price, I will put "@."

A. Right (designating on blackboard). [963]

Q. So that your Van-Ex was selling from 30c to 50c below the ferro-vanadium price?

A. That is correct.

Q. But vanadium oxide at $1.10 was selling 44c below your price of Van-Ex? A. Correct.

Q. Now, you can also quote these prices in terms of V_2O_5 or vanadium oxide but, of course, you couldn't quote the ferro-vanadium in that price, could you?

A. Well, you could, but it would be purely theoretical.

Q. You would have to really eliminate——

A. It would be artificial.

Q. It would be artificial. But now if you wanted to convert your $2.40 per pound Van-Ex price to

(Testimony of Martin Wolf.)

terms V_2O_5, how would you do that if you wanted to quote it—instead of per pound "V" in pound vanadium oxide? A. You would divide by 178.

Q. You would divide $2.40—let's see if I have that—you get $1.34? A. Perhaps.

Q. I multiplied by 56——

A. You say $1.34?

Q. Yes. A. Well, you've come close, yes.

Q. $1.35 or $1.33, which would be closer? [964]

A. $1.34.

Q. Actually, when you sold Van-Ex, you quoted it in terms of "V" at $2.40 per pound?

A. Yes.

Q. Which is equivalent to $1.34 per pound V_2O_5? A. That is right.

Q. Now with regard to the actual smelting of ferro-vanadium, with which you were familiar, in the Fredet Kuhlmann plant in France, the actual smelting was done in their plant by their employees, was it not? A. That is correct.

Q. And under the Apex Smelting Company contract, the smelting was done in the Apex plant by Apex employees? A. That is correct.

Q. And the smelting at the Climax plant was done by their employees at their plant?

A. Right.

Q. Now, there were no officers or employees of the Continental Ore Company which had any training or practical experience in metallurgy except the people hired from time to time for a particular problem as consultants, isn't that correct?

(Testimony of Martin Wolf.)

A. Absolutely correct. That is the way we operate. We hire technicians, we hire attorneys, we hire any particular specialist we need.

Q. We were referring yesterday, when we adjourned, to [965] sources of vanadium oxide, and I believe you testified that North Continent Mines was one of your suppliers. I show you a letter dated July 14, 1942, from yourself to North Continent Mines, Mr. Hendricks, referring to a conversation you had with him. This copy isn't too good, but it's the best I have. (Handing to witness.)

A. (Witness examining) Yes, sir.

Q. You had a conversation with Mr. Hendricks regarding the purchase of the output of the North Continent Mines or Shattuck Chemical Company; as a result of that conversation, you made a contract as described in this letter, is that correct?

A. Obviously. I have no recollection on it. This letter confirms it.

Mr. Alioto: We have no objection to the letter.

Mr. Archer: I offer this letter as defendant's exhibit next in order.

The Clerk: Defendant U's 3-Q.

The Court: Let it be admitted.

(Whereupon, letter dated 7/14/42, from Wolf to North Continent Mines, was received in evidence and marked Defendant U's Exhibit 3-Q.)

[See Book of Exhibits.]

Mr. Archer: It is dated July 14, 1942.

(Testimony of Martin Wolf.)

This was at about the time the Apex Smelting Company shut down its operations. A. Yes.

Mr. Archer: It is from Mr. Wolf, Continental Ore Corporation, to North Continent Mines, Attention: Mr. Hendricks. I will skip the first paragraph.

"We informed you that since the Apex Smelting Company is at present unable to carry on their ferro department because of urgent Government commitments, we have made arrangements to continue this business in a plant located on Long Island, near New York City.

"We understand the necessary changes in your plant will be completed shortly, so that you will be in a position to deliver the regular vanadic acid 85%, instead of iron vanadate, as you do now.

"In this connection, we informed you of our present price schedule for regular vanadic acid, which is as follows:

"Monthly Deliveries:

"Less than 3,000 lbs. . . . $1.10 per lb. V_2O_5 f.o.b. producers shipping pt.

"Between 3,000 & 10,000 lbs. . . . $1.125.

"Between 10,000 and 20,000 lbs. . . . $1.15.

"The moment you start shipments of vanadic acid, the prices mentioned above will, of course, also be applied to your deliveries.

"During the interim, we agreed to pay you for [967] your iron vanadate the minimum price provided in the above schedule, that is $1.10 f.o.b. your shipping point."

(Testimony of Martin Wolf.)

"The address of our plant is as follows:"

And you list, then, the Long Island plant address, "Notify the Continental Ore Corporation, 500 Fifth Avenue, New York."

You then state "We are enclosing photostatic copy of our general license to process vanadium which, of course, will be supplemented each month by the allocation from the War Production Board as heretofore."

Q. Now, to what did this general license to process vanadium refer?

A. Well, anybody who had any kind of process, processing installation, and was in the business of providing any raw materials for the industry or semi-finished products for the industry, had to have a license to receive strategic materials, which we had—we had one for Apex, Apex had one for their operation, and when we started the operation at the Long Island shop we got one for this locality.

Q. You remember I asked you about this before. Have you been able to find that?

A. Find what?

Q. That copy of that license. You don't know where it is now? [968]

A. Are you requesting it?

Q. You remember I was asking about these various things.

A. Well, I thought you wanted to make a list of what you wanted. We never got it.

Q. Well, I think——

Mr. Alioto, do you have a copy of the license?

(Testimony of Martin Wolf.)

The Witness: I definitely know we haven't looked for it.

Mr. Alioto: Nortl Continent should have it.

Mr. Archer: Well, yes, a photostatic copy was enclosed, but I was just wondering if he still had the original.

The Witness: We probably do.

Mr. Archer: The point is, it says "Regarding allocation for August, we noted that you will have between 10,000 and 12,000 pounds V_2O_5 available next month, and we therefore are applying to the WPB (which is the War Production Board) for 12,000 pounds V_2O_5 from you during August."

Now, do you recall that subsequent to that, Mr. olf, that the Continental Ore Company was informed by Mr.—that you were informed by Mr. Hendricks that they stopped operations because of the labor shortage? A. I don't recall. [969]

Q. (By Mr. Archer): I will show you a copy of a letter from Mr. Hendricks to Mr. Leir dated May 11, 1943, in which he referred to a phone conversation with Mr. Wolf.

A. That may be so.

Q. I ask you whether that refreshes your recollection? A. Yes, it does, probably. Yes, sir.

Mr. Alioto: We have no objection.

Mr. Archer: I offer a letter dated May 11, 1943, from Mr. Hendricks to Mr. Leir as defendants' exhibit next in order.

The Court: It may be admitted.

(Testimony of Martin Wolf.)

(The letter referred to was marked Defendant U Exhibit 3-R in evidence.)

Mr. Alioto: That refers to a letter enclosed.

Mr. Archer: I will take a look and see.

Mr. Alioto: Mr. Archer, I have the enclosure here. We can put that in. May 5, 1943, Wade, Curran and Company.

Mr. Archer: As the next exhibit do you want to put this in?

Mr. Alioto: It is part of that correspondence.

Mr. Archer: Then this refers to a prior one.

The next exhibit will be a letter dated May 5, 1943, from Mr. Leir to Wade, Curran and Company.

This is not the copy of the letter referred to. That [970] is apparently a letter to Continental.

(The letter referred to was thereupon marked Defendant U Exhibit 3-S in evidence.)

Mr. Archer: This letter states:

"We have for acknowledgment and thanks your letter of May 5,"——

Mr. Alioto: Any way you want to do it, Mr. Archer.

The Court: What is the date of the letter?

Mr. Archer: May 5, 1943.

The first letter is a letter from Mr. Leir to Wade, Curran and Company:

"We received your letter of April 30th for which we wish to thank you.

"We are interested to learn that you have large

(Testimony of Martin Wolf.)

quantities of carnotite at your disposal, but we, ourselves, do not use these ores.

"We therefore would suggest that you contact Mr. W. P. Hendricks, North Continent Mines, 231 South LaSalle Street, Chicago, Illinois, and offer your material.

"The North Continent Mines are supplying us with vanadium concentrates which we use in the manufacture of high-grade ferro-vanadium. We would, of course, be glad if you could come to terms with them, because we are always eager to increase the quantities our [971] sources of supply can put at our disposal.

"You may know that we are the only outsider in the ferro-vanadium field, which is a market otherwise completely controlled by the U. S. Vanadium Corporation and the Vanadium Corporation of America.

"You can therefore understand that we are always interested in obtaining sources of supply for the vanadium concentrates we need and increasing the supplies these independent sources can make available to us.

"Regarding the uranium content, you should not count too heavily on this. The use of the uranium is an extremely restricted one and we have not yet heard that any uranium alloy is being used in shells. However, since the ore is so rich in vanadium, you should be able to obtain a good return."

A copy of this was apparently sent to Mr. Baehr

(Testimony of Martin Wolf.)

of the North Continent organization, because he refers to that letter in his reply.

In Mr. Hendricks' letter to Mr. Leir dated May 11, 1943, he states:

"We have for acknowledgment and thanks your letter of May 5th, together with copies of letter to you from Wade, Curran and Company, Farmington, New Mexico, and your reply to them regarding [972] carnotite concentrates which they offer for sale. We are quite familiar with the situation as we have every reason to believe that some of this ore came from claims on which we believe we hold title. This, however, was disputed by the gentleman whom they mention as recently having died, and the matter is now in the hands of the attorneys."

Now about the conversation:

"In the writer's phone conversation with Mr. Wolf on April 12th, he told you that owing to labor shortage that the operations of our mill had stopped. We first lost our chemist, and then five of the key men and we have not since been able to replace any of these men. We are sorry to have to tell you that the mill has not been operated since then and at the present we cannot hazard any guess as to when operations will be resumed.

"We have retained all of the men and are using them in mining and development work, and we are continuing to mine ore which is being sold as raw ore to the Metals Reserve Corporation."

Q. (By Mr. Archer): Subsequent to that, Mr. Wolf, did you learn that the Securities and Ex-

(Testimony of Martin Wolf.)

change Commission had ordered the holding company of the North Continental Utilities, North Continent, [973] and Shattuck Chemical Company, to divest themselves of those assets?

A. I heard something about it, yes.

Q. I will show you a copy of a newspaper article taken from your file.

A. Do you happen to know the date of this?

Q. It says November 17th, and it is 1943, as a matter of fact. A. Yes, sir.

Mr. Archer: Unless somebody wants this in evidence—the orders are all published orders—I won't put it in evidence.

Q. (By Mr. Archer): Subsequent to that time, Mr. Wolf, did you talk to Mr. Hendricks about his plans, what they were going to do with the mill and the mine? A. I probably did.

Q. I will show you a memorandum of a conversation you had with him on December 8, 1943, and ask you whether you can identify that?

A. Yes, sir.

Mr. Alioto: We have no objection to that, your Honor, at all.

Mr. Archer: I offer it as defendants' exhibit next in order. [974]

The Court: It will be admitted.

(The memorandum referred to was thereupon marked Defendant U Exhibit 3-T in evidence.)

Mr. Archer: This is a memorandum dated De-

(Testimony of Martin Wolf.)

cember 8, 1943, by Mr. Wolf, regarding North Continent Mines, Metals Reserve, Vanadium:

"Called Mr. Hendricks, who apologized for not having answered our letter of November 20th because he was out of town.

"At present there is no change contemplated with regard to their operations of North Continent Mines.

"They are selling their vanadium ore to Metals Reserve via Vanadium Corporation of America. They realize more for the ore than they would if they made vanadic acid."

Vanadic acid is the vanadium oxide, or fused black oxide.

"Incidentally, they have no men to operate the mill even if they wanted.

"He asked us if we are still in the market for vanadic acid and I told him that we are. I told him further that the price is $1.10 unchanged, and he remarked that he is much better off if he sells the ore.

"He does not know how much longer his contract [975] with Metals Reserve runs.

"He promised to let us know whenever conditions change particularly with regard to a possible reorganization of the entire concern in case it would affect North Continent Mines proper."

Q. (By Mr. Archer): Subsequently, Mr. Wolf, were you involved at all with the negotiations of Continental Ore to acquire the assets of North Continent Mines? A. To what?

(Testimony of Martin Wolf.)

Q. To acquire the assets of North Continent Mines.

A. I don't think we ever had such intention.

Q. Do you remember a proposition that you made to them along with the Imperial Paper and Color Corporation?

A. I don't recall it now. Maybe you can help me.

Q. I think it was Mr. Leir who wrote this. I just wondered whether you had anything to do with them.

A. I may have known of it at the time, but I don't recollect now. If you have anything about it I will be glad to identify it.

Q. I do not have anything from you on it.

After the war the Vitro Manufacturing Company continued to manufacture vanadium oxide, did they not? A. Yes, they did.

Q. And they offered it to you from time to time.

I show you a memorandum dated August 4, 1948. I do not know whether you wrote it, but it refers to a conversation. Before I ask you about this memorandum dated August 4, 1948, Mr. Wolf, in the previous exhibit dated December 8, 1943, where you state that they are selling their vanadium ore to Metals Reserve via Vanadium Corporation of America, referring to North Continent Mines, do you know whether that was Vanadium Corporation of America or United States Vanadium Company?

A. Oh, there could be a mistake there. I assume it was United States Vanadium.

(Testimony of Martin Wolf.)

Q. The United States Vanadium was the agent for Metals Reserve?

A. Yes. I think there is a mistake in the memo. That could be.

Mr. Archer: As defendants' exhibit next in order I offer a memorandum referring to a conversation of Mr. Wolf dated August 4, 1948.

(The memorandum referred to was thereupon marked Defendant U Exhibit 3-U in evidence.)

Mr. Archer: "Mr. Wolf spoke to Mr. A. J. Strod of Vitro Manufacturing Company, Pittsburgh, Pennsylvania, who offered him, subject to being unsold, the following:

"48,000 pounds of fused vanadium pentoxide 88.1 [977] percent at $1.05 per pound of contained V_2O_5 f.a.s. New York, and also:

"24,000 pounds of air-dried vanadium pentoxide 84.86 percent at $1.00 per pound of contained V_2O_5 f.a.s. New York.

"48,000 pounds of fused material are ready packed in containers containing 400 pounds net."

Q. (By Mr. Archer): Do you recall whether the Continental Ore Corporation purchased any of this vanadium oxide, Mr. Wolf?

A. I am sure we did not, because we had no use for spot lots, and that is all we ever got.

Q. I believe you testified yesterday, Mr. Wolf, that one of your suppliers was Nisley & Wilson.

A. That is correct.

Q. As part of your functions with the Conti-

(Testimony of Martin Wolf.)

nental Ore Company you frequently went to Washington to see about allocations, and so forth, from various suppliers, including Nisley & Wilson?

A. That is right.

Q. I show you now a memorandum dated October 12, 1942, by yourself regarding a visit apparently to Metals Reserve, and ask you whether you can identify that. A. Yes, sir.

Mr. Alioto: Yes, Mr. Archer. [978]

Mr. Archer: This is dated October 12, 1942, Metals Reserve-Mr. Banks.

Q. Who is Mr. Banks? Do you recall him?

A. He was an officiat, I suppose, of Metals Reserve at the time.

Q. "W.P.B.-Stimmel." Who is Stimmel?

A. Stimmel was with the War Production Board.

Q. "Re: Nisley & Wilson."

Mr. Alioto: Do you mean to offer that in evidence?

Mr. Archer: I am sorry.

I offer this as defendants' exhibit next in order.

Mr. Alioto: No objection.

(The memorandum referred to was thereupon marked Defendant U Exhibit 3-V in evidence.)

Mr. Archer: "Re: Nisley & Wilson.

"Mr. DeWitt Smith was not expected back in his office. Mr. Banks said that as far as he knows we do not need any contract if we are consumers of vanadic acid, which is up to the W.P.B. to decide.

(Testimony of Martin Wolf.)

"We would have to make a request for allocation through the W.P.B. and draw on the Metals Reserve.

"Mr. Stimmel was out of town. His secretary confirmed the above information."

This is dated October 12, 1942. [979]

Q. (By Mr. Archer): Now, subsequently in the fall of 1942 you attempted to obtain an allocation from Nisley & Wilson through the Metals Reserve, did you not? I show you two letters, one dated November 6, 1942, to Metals Reserve, and a reply dated November 10, 1942. A. Yes, sir.

Mr. Archer: I offer these two letters as defendants' exhibits next in order.

Mr. Alioto: No objection.

(The two letters referred to were thereupon marked Defendant U Exhibit 3-W in evidence.)

Mr. Archer: November 6, 1942, Metals Reserve Company, Washington, D. C.:

"Attention: Mr. DeWitt Smith.

"Gentlemen:

"Re: Vanadium Pentoxide.

"We refer to the allocation of the W.P.B. dated October 27, allocating to us 4,000 pounds of metallic vanadium contained in vanadium pentoxide for November.

"We should appreciate hearing from you as to when shipment of this material will be made.

"Very truly yours,

"Continental Ore Company." [980]

(Testimony of Martin Wolf.)

"Metals Reserve Company,

"Washington, D. C. "November 10, 1942

"Continental Ore Company,

"500 Fifth Avenue,

"New York, N. Y.

"Gentlemen:

"This will acknowledge your letter of November 6, referring to the allocation of the War Production Board dated October 27, allocating to you 4,000 pounds of metallic vanadium contained in vanadium pentoxide for November. This allocation was made from the Nisley & Wilson mill on which we have no present contract.

"We have taken this matter up with the War Production Board and will ascertain their wishes."

Q. (By Mr. Archer): Subsequently, Mr. Wolf, you obtained this material which you had requested from Nisley & Wilson from the Durango mill of Metals Reserve, did you not?

A. I believe that was it.

Q. And that Durango mill was the one which was operated by the United States Vanadium Corporation as agent for Metals Reserve?

A. Yes. [981]

Q. Later on, however, after the contract was made between Metals Reserve Company and Nisley & Wilson you were allocated their production, were you not? I show you, first, a letter from United States Vanadium Corporation, by G. Donald Emigh dated May 4, 1943, to Continental Ore Company, Attention Mr. Wolf.

(Testimony of Martin Wolf.)

While you are looking at that I will show you a letter dated April 21, 1943, from G. Temple Bridgman of the Metals Reserve to Continental Ore Company and ask you if you can identify that one, too.

A. Yes, sir.

Mr. Archer: I offer these two exhibits as one exhibit, as defendants' exhibit next in order.

Mr. Alioto: No objection.

(The two letters referred to were thereupon marked Defendant U Exhibit 3-X in evidence.)

Mr. Archer: The first is from Mr. Emigh, United States Vanadium Corporation, to Continental Ore Company.

You recall Mr. Emigh, Mr. Wolf?

The Witness: No.

Mr. Archer: "Attention: Mr. Wolf.

"Gentlemen:

"Enclosed is a copy of our letter asking Ledoux and Company——"

Q. What was Ledoux and Company?

A. It was a laboratory.

The Court: What?

A. A laboratory.

Mr. Archer: Laboratory.

A. Assay sampler.

Mr. Archer: They sampled the vanadium oxide to determine whether it was up to grade?

A. That's right.

Mr. Archer: (Reading.)

"Enclosed is a copy of our letter asking Ledoux and Company to analyze shipments of fused vana-

(Testimony of Martin Wolf.)

dium oxide from the Nisley-Wilson plant, Gateway, Colorado, on their arrival at Langeloth."

Q. At Langeloth, Pennsylvania, was the Climax Molybdenum Company? A. That is correct.

Q. And at this time you had the contract with them for the production of ferro-vanadium, did you not? A. That's correct.

Mr. Archer: (Reading.)

"We are asking our Colorado office to mail you both at New York and at Langeloth copies of the bills of lading on the date shipments are made.

"Will you please advise Ledoux and Company on arrival of product at Langeloth so they can arrange to weigh, sample and analyze shipments."

The next is dated April 21, 1943, from Metals Reserve Company to Continental Ore Company:

"Re: Contract No. MR C-1 S-471 Vanadium.

"Gentlemen:

"There is enclosed executed counterpart of the captioned contract dated April 20, 1943, covering the sale to you by this company of 17,834 pounds of fused vanadium oxide (equivalent to 10,000 pounds of vanadium) produced at Gateway, Colorado.

"It is noted that you have changed the destination from Chicago, Illinois, to Langeloth, Pennsylvania. Accordingly, the contract is hereby modified by substituting for the point of destination Chicago, Illinois, the destination Langeloth."

Q. Does that refresh your recollection, Mr. Wolf,

(Testimony of Martin Wolf.)

that you [984] were allocated the production from the Gateway mill by Metals Reserve?

A. No, because this specifies one lot.

Q. One lot?

A. I have no recollection that all the production of the Gateway mill was allocated.

Q. What I am getting at: Don't you recall the previous memorandum which I read in evidence here of your first meeting with the War Production Board, the M.R.C. in Washington, in which they said that a contract would not be necessary?

A. That was their opinion. But apparently we got a contract later. As you can see, we got an actual contract from Metals Reserve.

Q. Did you go through with that contract and purchase the vanadium oxide?

A. Yes. This one lot.

Q. Are you sure?

A. Yes. There was another question later, as you may remember, where we wanted to buy more material from Metals Reserve and we were told they don't have any.

Q. I show you now a memorandum dated June 3, 1943, by Martin Wolf, referring to a telephone call with Mr. Emigh. I ask you whether you can identify that.

A. (Witness examining) Yes, sir.

Q. Do you recall now this conversation with Mr. Emigh? [985]

A. Well, this did not refer to the allocation to us of the entire production of it.

(Testimony of Martin Wolf.)

Q. You referred to the contract of 17,000 to which I just referred?

A. That is right. Oh, excuse me. This does not refer to it. This refers to subsequent deliveries.

Mr. Alioto: We have no objection.

Mr. Archer: As Defendants' Exhibit next in order, I offer a memorandum dated June 3, 1943.

(Memorandum dated June 3, 1943, Martin Wolf, received in evidence and marked Defendant Union's Exhibit 3-Y.)

Mr. Archer: This is dated June 3, 1943, a memorandum by the witness entitled "Union Carbide, Vanadium Corporation, Nisley and Wilson, Metals Reserve, Stimmel and Hatch.

"Mr. G. Donald Emigh telephoned. He just came back from Colorado.

"After having sent us the wire regarding the impossibility of Nisley and Wilson's making flakes, he again discussed the matter with their technical man and Nisley and Wilson, but they could not find a solution. The fact is that their furnace is only a couple of inches above the ground, and in order to make flakes, the material must be poured downwards, which with this setup cannot be done.

"He mentioned that Nisley and Wilson had produced [986] 5,000 pounds of V_2O_5, which are already packed in our drums, and that they have 4,000 pounds of V_2O_5 in the circuit. The material is very nice, according to Mr. Emigh, showing 86 per cent V_2O_5.

(Testimony of Martin Wolf.)

"It is in the form of small lumps, one-third to one-half inch, and that is all they can make.

"The Union Carbide plant at Durango, too, only makes lumps of one-half inch.

"The only plants of Union Carbide which make flakes are the Uravan and Rifle plants.

"I told them that the only alternative for us would be to order grinding equipment, but that the present output could not be used because we would have to wait some time to get it.

"He suggested that in this case we should write to Metals Reserve and explain the situation so that this stuff can be moved.

"It really looked like he wanted us to accept this material because he mentioned again and again that they have no difficulties with those small lumps, and he mentioned that with a little more reserve we should be in a position to use it, too."

Q. Now, on June 3, 1943, didn't you have some grinding equipment, Mr. Wolf, at your Long Island plant?

A. We may have had some equipment, but apparently it wasn't fit to use this material.

Q. I believe it was your testimony that this conversation [987] with Mr. Emigh referred to a subsequent contract.

A. I believe that follows that letter.

Q. The memorandum is dated June 3, 1943. The original letter is April 21, 1943, and it shows Contract No. MR C-1 S-471, correct?

A. That is what it says, yes.

(Testimony of Martin Wolf.)

Q. Your conversation with Mr. Emigh is June 3, 1943, a month and a half afterwards?

A. Yes.

Q. But you say that that did not refer to MR C-1 S-471 contract?

A. I don't have any particular recollection about it. I can only deduce this from these letters.

Q. Well, what I want to know is, did you purchase from Metals Reserve under the MR C-1 S-471 contract, this April contract for 17,000 pounds from Nisley and Wilson?

A. Let's put it the other way around. I know that we got 17,000 pounds of vanadium oxide delivered by Metals Reserve to the Langeloth plant. Whether it was under this contract or some other contract, I would not know now.

Q. That was the previous Durango shipment that we mentioned, wasn't it?

A. You got me there.

Q. Well, as a matter of fact, you cancelled the contract with the Metals Reserve, didn't you? I show you a letter—— [988] A. Let me see it.

Q. ——to Metals Reserve dated July 8, 1943, and their reply, July 15, 1943, referring to Contract No. MR C-1 S-471.

A. That seems to be it.

Mr. Archer: Offer these letters as Defendant's Exhibit next in order.

Mr. Alioto: No objection.

Mr. Archer: Is that your handwriting on the exhibit? A. Yes, it is.

(Testimony of Martin Wolf.)

(Copy of letter, Continental Ore to Metals Reserve, dated July 8, 1943; letter Metals Reserve to Continental Ore dated July 15, 1943, received in evidence and marked Defendant U's Exhibit 3-Z.)

Mr. Archer: Letter dated July 8, 1943, from Mr. Wolf to the Metals Reserve Company, Attention Mr. G. Temple Bridgman, Executive Vice-President.

"Gentlemen:

"Re: Vanadic acid Contract No. MR C-1 S-471.

"We refer to the above contract and wish to say that inasmuch as the production from Nisley and Wilson cannot be put into the form of flakes, we are, at present, unable to use their output.

"We arrived at this conclusion after having tried various ways of utilizing it, but we would need some [989] new equipment for this purpose which is not readily available at the present time.

"This situation may change in the near future, but in the meantime we do not want to tie up these 10,000 pounds of V contained in the form of vanadic acid. We would therefore suggest that the above contract be cancelled and the material be put to use.

"May we have your reaction."

Q. Would you read your handwriting there? I don't know, it's a little dim and I don't know whether you can read it (handing witness).

A. (Witness examining) "Mr. E. L. Murphy

(Testimony of Martin Wolf.)

called and asked us to write this letter, which would be better than a cancellation at this point."

Mr. Alioto: Is that "at this point" or "on their part"? Look at it again.

A. (Witness examining) "On their part." You can read my handwriting better than I can.

Q. (By Mr. Archer): Who was Mr. Murphy?

A. I wouldn't know now, but he must be someone at Metals Reserve.

Q. Following that is a letter dated July 15, 1943, from Metals Reserve, G. Temple Bridgman, Executive Vice-President, to Continental Ore Company.

"This will acknowledge receipt of your letter [990] of July 8, 1943, wherein you state that inasmuch as the production from Nisley and Wilson cannot be put into the form of flakes, that you are unable to use the material covered by the captioned Contract of April 20, 1943.

"Pursuant to your request, the aforesaid Contract covering the sale to you of 17,843 pounds of vanadium pentoxide is hereby cancelled."

Now, Mr. Wolf, you stated in your letter to Metals Reserve that one of your reasons for cancellation "* * * We would need some new equipment for this purpose which is not readily available."

How much money did the Continental Ore Company have invested in actual fixed assets, equipment for processing vanadium oxide at the Long Island plant?

A. Oh, it was very little. A few thousand dollars, I would say.

(Testimony of Martin Wolf.)

Q. A few thousand dollars?

A. That is right.

Q. And how much would it have cost you to get a machine to process this?

A. Well, it's not a question of the cost of the machine. It's the question of the availability. We were in the war time at the time and there was a shortage of machinery and equipment and manpower, as we have seen before in this North [991] Continent business, and so it wasn't easy to pick up a piece of equipment like that.

Q. Well, all these things made operations very difficult during the war, didn't they?

A. Yes. But it was a matter of time, apparently, to get it through.

Q. Well, now, as a matter of fact, prior to 1943 you had been very happy with Nisley and Wilson's product, hadn't you? A. That is right.

Q. And you had made an agreement to take all their production prior to that time, hadn't you?

A. That is right.

Q. I show you a letter dated August 3, 1942, from yourself to Nisley and Wilson, and ask you if that is the agreement which you made with them.

A. (Witness examining) Yes, sir.

Mr. Alioto: This is before the Metals Reserve period?

Mr. Archer: That's right.

Mr. Alioto: And before the——

Mr. Archer: Actually, it is not before the Metals

(Testimony of Martin Wolf.)

Reserve period. Metals Reserve started in May, '42. This is dated May of 1942.

Mr. Alioto: The contract——

Mr. Archer: We have our contracts in May 1942. [992] It was before the Nisley-Wilson contract. It is dated August 3, 1942.

Mr. Archer: I offer this as Defendant's Exhibit next in order.

(Letter August 3, 1942, from Wolf to Nisley and Wilson received in evidence and marked Defendant U's Exhibit 4-A.)

[See Book of Exhibits.]

Mr. Archer: This is from Mr. Wolf to Nisley and Wilson, dated August 3, 1942:

"We are pleased to inform you that we have received copy of the allocation (the original of which you will receive) issued by the WPB, authorizing you to ship to us 4,500 lbs. V which is equivalent to about 9,500 pounds of vanadic acid."

Then I skip a paragraph regarding the shipping instructions.

"Because of urgent government work in the aluminum and magnesium field at the Apex Smelting Co. plant in Chicago, we have shifted our ferro-alloys production to our Long Island plant for the duration of the war. We would therefore appreciate your making all future shipments to——"

Then you have the addresses of the Long Island plant——.

Q. Actually, you never made any ferro alloys at the Long Island plant? [993] A. No.

(Testimony of Martin Wolf.)

Q. You referred there to your Van-Ex.

A. Yes.

The Court: What did you manufacture at your Long Island plant? A. Van-Ex.

Q. (By Mr. Archer): Going back to the period about which we talked yesterday, in January 1944, when you had your contract with the Imperial Paper and Color Corporation, you recall yesterday we referred to the stock of Otavi ore, which Metals Reserve had? A. Yes.

Q. Which was the raw ore which had to be processed before it was vanadium oxide?

A. Yes, correct.

Q. And you said this would be very difficult to do, did you not? A. "This", meaning what?

Q. To process the Otavi ore.

A. Not necessarily. It depended on a steady supply. You can process almost anything, depending upon cost, of course, but it is a matter of having a steady supply.

Q. Well, Metals Reserve also at this time had straight vanadium oxide, did they not?

A. Yes. [994]

Q. I show you a memorandum you made of your trip to Washington on January 25, 1944, and ask you whether you can identify that?

A. (Witness examining.)

Mr. Alioto: No objection.

Mr. Archer: Offer this memorandum dated January 25, 1944, as Defendant's Exhibit next in order.

(Testimony of Martin Wolf.)

(Memorandum of Wolf dated January 25, 1944, received in evidence and marked Defendant U's Exhibit 4-B.)

Mr. Archer:

"Re: Vanadic Acid.

"Metals Reserve."

This is by the witness.

"Mr. Murphy at Metals Reserve handles vanadium more or less together with Mr.——"

Is it Mirel?

A. This is Mirel, I believe so. I am not quite sure, though.

Q. How do you spell Mirel? Is that——

A. M-i-r-e-l.

Q. Is that the gentleman who presently works for you?

A. No. No. We hired him later but he is not with us anymore.

Q. You hired this man later?

A. Mr. Mirel, I think it was—yes.

Q. Did you hire him later, you say? [995]

A. Yes.

Q. He wasn't working with you at that time?

A. Oh, no. No.

Mr. Archer: (Reading.)

"They do not have any ground material at their disposal.

"The only thing they have is 50,000 lbs. of V_2O_5 contained in flakes at Grand Junction (this seems to be Nisley & Wilson's material) and at Durango they have a quantity in large lumps or blocks. Mr.

(Testimony of Martin Wolf.)

Murphy does not know how much of these blocks is available.

"He confirmed that all Metals Reserve plants will close down on February 29 so that Metals Reserve will not have any vanadic acid available after that date from new production. The 50,000 pounds at Grand Junction and the material in blocks seem to be the only vanadic acid on which we still can lay our hands if we act promptly.

"If we intend to make ferro, Nisley and Wilson's flakes should be satisfactory without grinding.

"With regard to the blocks or lumps however we would have to grind them in any case and there is no reason in the world why Union Carbide should accommodate us." [996]

The Witness: Very right.

Q. (By Mr. Archer): Now, you learned then subsequent to your cancellation of the Nisley and Wilson contract or the contract with Metals Reserve from Nisley and Wilson mill that Nisley and Wilson had installed a flaking device, hadn't you?

A. Obviously from the letter.

Q. Did you purchase any from Nisley and Wilson after they installed the flaking device?

A. What was the date of this memorandum?

Q. This is January 25, 1944.

A. I doubt that very much. Weren't they closed down about that time?

Q. They were closed down by January 25, 1944. Yes.

A. Yes. Well, we never knew before that they

(Testimony of Martin Wolf.)

had any flaking equipment installed because their production apparently went to the Metals Reserve.

Q. Weren't you informed in the fall of 1943 that Nisley and Wilson had installed their flaking equipment and didn't they send you a sample or send Mr. Leir a sample?

A. It is possible. But at that time wouldn't they still have their contract?

Q. They had their contract with Metals Reserve.

A. So we couldn't even get it.

Q. You had just cancelled the contract with Metals Reserve for their production, hadn't you?

A. At the time they didn't have the flake material.

Q. Well, why do you say you couldn't have gotten a contract from Metals Reserve after they had the flake material?

A. Because at one time we bought material from Metals Reserve—we thought we had bought it and Metals Reserve said they don't have any more; we were told to go to Union Carbide to buy the material. That was a famous case, when Metals Reserve billed us at $1.10 and Union Carbide then billed us at $1.15—out of friendship, I suppose.

Q. And that was in April of 1943?

A. The dates, you perhaps can refresh my memory on.

Q. Well, was it the early part of '43? Because it went down to Climax, didn't it?

A. I think that was the—that went to Climax.

Q. Well, what I am getting at, is that this con-

(Testimony of Martin Wolf.)

tract you cancelled with Metals Reserve—you cancelled the contract in June of 1943? A. Yes.

Q. Because Nisley and Wilson wasn't making flakes? A. Correct.

Q. Subsequently they installed flaking equipment, and my question, now, is: Why didn't you go to Metals Reserve and try to get their production after they had installed flaking equipment?

A. I think this is something that I would have to look up. [998] I don't know when we knew that they made flakes and what the situation was with the availability of Metals Reserve, but at one time Metals Reserve told us that they had allocated the production of Nisley and Wilson to Union Carbide and to Vanadium Corporation. I don't know which was first.

Q. Didn't they tell you that they had allocated the Durango production and that Nisley and Wilson was not in operation yet—wasn't this in April, 1943? A. I will have to look that up.

The Court: At this time we will take a ten-minute recess.

(Short recess taken.) [999]

Q. (By Mr. Archer): Mr. Wolf, do you recall that you cancelled the contract with Metals Reserve for the 17,000 pounds of V_2O_5 from Nisley and Wilson in June, 1943, is that correct?

A. Because of the form in which the material was at that time, right.

Q. And because you could not procure the material and grind it? A. That is right.

(Testimony of Martin Wolf.)

Q. I asked you whether you attempted to get that material from Metals Reserve subsequent to the time that Nisley and Wilson installed a flaking device, and I believe you testified that Metals Reserve had at one time refused to send you some vanadium oxide, is that correct?

A. That is right.

Q. But that occurred prior to June 1943, didn't it? A. Probably.

Q. I show you two letters dated March 5, 1943, one from Metals Reserve Company to Mr. Leir, and one from the War Production Board to yourself. I think you will probably want to read them.

A. Yes, sir.

Mr. Archer: I offer these two exhibits as Defendant's Exhibit next in order.

Mr. Alioto: No objection. [1000]

(The documents above referred to were thereupon received in evidence and marked Defendant U's Exhibit 4-C.)

Mr. Archer: The first is from the Metals Reserve Company to Mr. Leir, dated March 5, 1943, from DeWitt C. Schieck, Assistant Vice President:

"Dear Mr. Leir:

"Receipt is acknowledged of your letter of March 1, 1943, regarding an allocation by the War Production Board of 20,000 pounds of contained vanadium in vanadium concentrates. You request information regarding when you may expect delivery.

"We regret to inform you that although we have received the allocation, because of previous commit-

(Testimony of Martin Wolf.)

ments we have no available material with which to fill your order, and do not anticipate having any in the near future. We have discussed the matter with the War Production Board, and you will probably receive a communication from that Agency."

March 5th, 1943, that same date, from the War Production Board, S. C. Stimmel, Ferro-Alloys Branch, to Mr. Martin Wolf.

"Dear Mr. Wolf:

"We have been notified by Metals Reserve Company that the total production of the Durango Plant has already been contracted for, and consequently, there [1001] will be no available material for allocation from that plant.

"On your last visit to Washington, we warned you of the possibility of this, and while we have made an allocation from Metals Reserve to Continental Ore, you will understand from the above that this allocation cannot be filled."

Q. Now, the 20,000 pounds of contained vanadium which you referred to in this letter was the contained vanadium or vanadium oxide which was set forth in a contract with Climax, was it not?

A. Yes, I believe it was.

Q. And Nisley and Wilson had not commenced operations under the toll agreement at the time these letters were written in March of 1943, had they? A. I don't believe they had.

Q. Consequently that put you in a very difficult position for getting your vanadium oxide from Climax, didn't it? A. Yes.

(Testimony of Martin Wolf.)

Q. And consequently Mr. Leir wrote to the Electro Metallurgical Company, didn't he? You probably want to see this. Some of this correspondence is with you, some with Mr. Leir. You probably want to read it. A. Yes.

Mr. Archer: As Defendant's Exhibit next in order [1002] I offer a letter dated April 9th, 1943, from Mr. Leir to the Electro Metallurgical Company.

Mr. Alioto: We have no objection.

(The document referred to was thereupon received in evidence and marked Defendant U's Exhibit 4-D.)

Mr. Archer: Continental Ore Company, Henry J. Leir, to Electro Metallurgical Company, April 9th, 1943.

"Gentlemen:

"Re: Vanadium Pentoxide.

"We refer to the allocation made out by the WPB under date of April 7 in our favor in the amount of 10,000 lbs. of metallic V contained (17,843 lbs. contained V_2O_5) in Vanadium Concentrates.

"We would very much appreciate your kindly informing us when this material is expected to be ready for shipment so that we may give you our shipping instructions.

"Thank you for your kind attention."

The Court: Who wrote that letter?

Mr. Archer: The plaintiff, your Honor, Mr. Leir, to the Electro Metallurgical Company.

(Testimony of Martin Wolf.)

Q. Now, there was no secret about the fact, was there, [1003] Mr. Wolf, that this material was going to the Climax Molybdenum Company for your account, was it? A. No secret.

Q. I will show you the letter from Mr. Leir.

Mr. Alioto: You do not have the reply to that letter you just read?

Mr. Archer: I do not think there is any.

Q. I will show you a letter dated April 14th, 1943 from Mr. Leir to Electro Metallurgical Sales Corporation. A. Yes, sir.

Mr. Archer: Mr. Leir to the Electro Metallurgical Sales Corporation, attention Mr. T. F. O'Heir.

"Gentlemen:

"Re: 10,000 pounds of V contained in vanadium concentrates.

"We refer to our telephone conversation of this afternoon and duly noted that the above quantity which was allocated to us by the WPB will be ready for shipment within a few days.

"Please ship this material to Continental Ore Company, c/o Climax Molybdenum Company, Langeloth, Pennsylvania.

"Since this material originates in Columdiana, Ohio, we kindly ask you to ship by truck, which insures the speediest delivery." [1004]

"Our insurance policy——"

That is irrelevant, insurance.

I offer it in evidence. I am sorry. I should have offered it before I read it, your Honor. I apologize.

(Testimony of Martin Wolf.)

(The document referred to was thereupon received in evidence and marked Defendant U's Exhibit 4-E.)

Q. (By Mr. Archer): Do you recall that in this month of April, 1943, Mr. Wolf, you had conversations with Mr. O'Heir of Electromet, and with Mr. Donald R. Harrison, Works Manager, about the shipping and grinding of this product?

A. Most probably.

Q. I will show you a memorandum of your conversation. A. Thank you.

Q. There is a letter of the same date to Mr. Harrison from yourself which I will show you.

A. Well, you see, we had a real problem about the grinding. We asked him to grind it for us.

Q. Did they grind it for you?

A. I don't think the first shipment. Apparently it says the first shipment had to go out as is, a quarter-inch size, and we asked them to grind the next one to about ten mesh. I don't know whether that was done or not, but I mean it was always a question of grinding, as you can see.

Q. Wasn't it a question of price, too? [1005]

A. Yes, a little later. We were unsuspecting at that time.

Q. So far as your relationships with Electromet, they had been very satisfactory, hadn't they?

A. No, polite. They were not satisfactory.

Mr. Archer: I will offer these as Defendant's Exhibit next in order.

Mr. Aliotc: No objection.

(Testimony of Martin Wolf.)

Mr. Archer: One exhibit, I think.

(The documents referred to were thereupon received in evidence and marked Defendant U's Exhibit 4-F.) [1006]

Mr. Archer: (Reading) This is April 29, 1943, memorandum by Mr. Wolf:

"Spoke to Mr. O'Heir of Electro Met. He believes that they are shipping today 5,700 pounds of "V" contained by truck from Columbiana to Langeloth."

Langeloth was where your Climax Company was?

A. Right.

Mr. Archer: (Reading)

"The balance should also go out today from their plant from Alloy (West Virginia).

"They had some trouble and could not get out the entire quantity as they had intended earlier this month.

"I then spoke to Mr. Donald R. Harrison, Works Manager. He believes that the material is about one-quarter inch in size. They have grinding facilities but these are taxed to capacity at the present time. However, he would look into this matter and see whether they could grind our material in the future to 10 mesh."

Then Mr. Wolf's letter to Mr. Donald R. Harrison of the same date: "Re Vanadium Pentoxide.

"We refer to our telephone conversation of [1007] this morning and wonder whether, for future shipments to us, you would be in a position to grind the vanadium concentrates to about 10 mesh size with not too many fines (below 80 mesh).

(Testimony of Martin Wolf.)

"We would very much appreciate your looking into this matter and letting us have your news at your earliest convenience.

"Thank you for your cooperation.

"Very truly yours,

"Continental Ore Company, Martin Wolf, Manager."

Q. I now show you the shipping instructions, bill of lading and the invoice on this shipment, Mr. Wolf, and ask you to identify it.

A. (Witness examining.)

The Court: These shipments that you referred to were from the metallurgical company?

Mr. Archer: Yes, your Honor.

A. (Witness examining offered document.) Yes, sir.

Mr. Alioto: This is the same 10,000 pounds?

Mr. Archer: Well, it's 17,000 pounds vanadium oxide, 10,000 V.

Mr. Alioto: No objection.

Mr. Archer: Offer this as Defendant's exhibit next in order.

(Bill of Lading and Invoice from Electro Metallurgical Company to Continental Ore Company, Climax, Langeloth, Pa., April 30, 1943, marked Defendant-U Exhibit 4-G in evidence.) [1008]

Mr. Alioto: The first is the invoice from Electro Metallurgical Sales Corporation to the Continental Ore Corporation, dated April 30, 1943, care of Climax Molybdenum Company. It shows a total of

(Testimony of Martin Wolf.)

17,898 pounds of contained vanadium oxide, price $1.15. Total amount $20,583.39.

The bill of lading shows a shipment to the same destination.

Q. Now, this 17,898 pounds was approximately the same amount which you had under contract with Metals Reserve Company for Nisley and Wilson at the same time? A. That is right.

Q. And you had it under contract for Metals Reserve at a price of $1.10, did you not?

A. That is correct.

Q. And that is the contract which you cancelled?

A. That is right.

Q. Now, when you received this invoice that showed the price at $1.15 you immediately protested it, did you not? A. And how.

Q. I show you your letter, from Mr. Wilson to Electro Metallurgical Sales Corporation, dated May 4, 1943, and ask you to identify it.

A. (Witness examining): Well, this was not after the invoice reached us. This was after the shipping invoice [1009] reached us. This was after we had the shipping invoice.

Q. You didn't know the price at the time you wrote this letter? A. No, I'm sure not.

Mr. Archer: I offer this letter from Mr. Wolf to Electro Metallurgical Sales Corporation dated May 4, 1943 as defendants' exhibit next in order.

Mr. Alioto: No objection.

(Letter of May 4, 1943 from Continental Ore Company to Electro Metallurgical Sales Corp.

(Testimony of Martin Wolf.)

received in evidence and marked Defendant-U Exhibit 4-H.)

[See Book of Exhibits.]

Q. (By Mr. Archer): In April 1943, Mr. Wolf, didn't you think that $1.15 was a fair price for a shipment as large as 17,000 of vanadium oxide?

A. No.

Q. Hadn't you agreed in June of 1942 to buy North Continent's output in shipments larger than 10,000 at $1.15? A. Yes.

Q. But by April 1943 you changed your mind?

A. I will tell you why.

Q. Because of the Metals Reserve selling at $1.10? A. For two reasons.

Q. What are the reasons?

A. The first one was that this was supposed to replace our contract with Metals Reserve, which was made at $1.10. [1010] So when the allocation from the War Production Board was shifted to Electro Met, we had a right to expect that it would be at no higher price than the price at which we could have bought from Metals Reserve.

Secondly, during that period, between 1942 and 1943, we had encountered great difficulties with one of our most valued customers in shipping material to him. In fact, Electro Met stopped us from continuing working with that customer. So our entire position had become very precarious and that was about the time when we also had difficulties or felt that difficulties would be arising in connection with our Climax contract. You will recall that I had

(Testimony of Martin Wolf.)

some conversations with Mr. Arrouet of Electro Met in connection with Climax a little later which referred to all these happenings. I am not supposed to talk about those.

Mr. Archer: Well, I move to strike so much of the witness' answer that refers to that, your Honor.

Mr. Alioto: We will object, if your Honor please. He is answering the question asked by counsel as to why he took one position in '43 as against one in '42.

The Court: Well, he stated that he changed his mind. He thought he had a right to have it under the original contract.

Proceed.

Q. (By Mr. Archer): Mr. Wolf, you hadn't had a contract [1011] with Electro Met Sales prior to the time of this purchase, had you?

A. No, we did not.

Q. Now, the protest actually wasn't made by you, was it, on the question of price?

A. By someone in our organization, I am sure.

Q. It was made by Mr. Leir, wasn't it?

A. That could be.

Q. I show you Mr. Leir's letter dated May 11, 1943.

A. (Witness examining): Yes, sir.

Mr. Alioto: We have no objection.

Mr. Archer: Offer this as defendant's exhibit next in order.

(Letter of May 11, 1943 to Electro Metallurgical Sales Corporation from Continental Ore

(Testimony of Martin Wolf.)

Company, received in evidence and marked Defendant-U Exhibit 4-I.)

Mr. Archer: Letter May 11, 1943, Electro Metallurgical Sales Corporation from Mr. Leir—"Re: Your Invoice No. 24892, April 30.

"We refer to your above invoice covering shipment of vanadium oxide and to our telephone conversation of last week.

"Please arrange to send us a new invoice made out on the basis of $1.10 per pound or send us your credit memorandum for the difference [1012] of five cents per pound so that we can settle this invoice.

"Thank you for your kind attention to the above.

"Continental Ore Company."

I now will show you the reply to that dated May 18, 1943, from Mr. Remmers to Continental Ore (handing witness).

A. (Witness examining.)

Mr. Alioto: Is that Mr. Remmers of Continental Ore?

Mr. Archer: No.

Mr. Alioto: From Mr. Remmers to Continental Ore?

Mr. Archer: From Mr. Remmers of Electro Met to Continental Ore. I'm sorry.

I offer this as defendant's exhibit next in order.

Mr. Alioto: We have no objection.

(Letter of May 18, 1943 from Electro Metallurgical Sales Corporation to Continental Ore

(Testimony of Martin Wolf.)

Company, received in evidence and marked Defendant-U Exhibit 4-J.)

Mr. Archer: This is from Mr. Remmers of Electro Metallurgical Sales Corporation to Continental Ore Company, dated May 18, 1943.

"This replies to your letter of May 11 on the subject of the above invoice covering a shipment of vanadium oxide.

"The price of $1.15 per pound of contained [1013] vanadium oxide is our regular price to anyone for spot purchases of vanadium pentoxide in quantities of 500 pounds or more.

"We trust that this will answer your question concerning the price included in the above-mentioned invoice and that it will be passed for payment as rendered."

Then on May 19, following that letter, you wrote two letters to the Electro Metallurgical Sales Corporation, did you not, Mr. Wolf—I will show them to you (indicating).

A. (Witness examining): Yes.

Mr. Archer: Offer these as defendant's exhibit next in order.

(Letter of May 18, 1943, Continental Ore to Electro Metallurgical Sales Corporation; letter May 19, 1943, from Continental Ore Company to Mr. H. M. Rich, Electro Metallurgical Sales Corporation—received in evidence and marked Defendant-U Exhibit 4-K.)

Mr. Archer: The first is dated May 19, 1943,

(Testimony of Martin Wolf.)

from Mr. Wolf to Electro Metallurgical Sales Corporation, attention Mr. W. E. Remmers.

"Re: Invoice No. 24892, April 30, 1943.

"We received your letter of May 18 and wish to say that the WPB, Washington, made out the allocation for 10,000 of the contained vanadium [1014] pentoxide in your name only because there was no material available at the Durango Plant of the Metals Reserve from where we had received material previously.

"All our material from Metals Reserve was invoiced at $1.10 per pound of V_2O_5 contained, delivered our plant, and we had no reason to expect that we would be charged any other price.

"Furthermore, these allocations will be continued either from Durango or from you and we believe that under these circumstances you will charge us the same price that we had agreed to pay Metals Reserve since this was our definite understanding with them.

"May we hear from you."

On the same date you write to Mr. Rich — Mr. Wolf writes to Mr. Rich:

"Re: 10,000 pounds of 'V' contained in vanadium pentoxide—May allocation.

"We refer to our telephone conversation of May 17 and are pleased to give you below the following order in conformity with the allocation received from the WPB, Washington:

"Merchandise, Vanadium pentoxide-minimum 85% containing no detrimental [1015] impurities.

(Testimony of Martin Wolf.)

Size, In small flakes.

Quantity, 10,000 lbs. of V contained in Vanadium Pentoxide.

Price, *$1.10 per lb. of V_2O_5 contained, delivered Langeloth, Pa.

Shipment, Upon our release, probably around the end of May.

Terms, Net cash 30 days.

"We will give you our release in time for you to prepare this shipment.

"Thank you for your kind attention."

Mr. Alioto: (*) Counsel, I think you inadvertently said "$1.00 per pound."

Mr. Archer: "$1.10."

Mr. Alioto: Thank you. $1.10.

Mr. Archer: "$1.10 per pound of V_2O_5 contained, delivered Langeloth, Pennsylvania."

Then Mr. Remmers' reply to you by date of May 20, 1943 (handing to witness).

Mr. Alioto: Counsel, you don't have to identify them unless you want to.

Mr. Archer: Well, I will read them so that Mr. Wolf knows what is in them.

I offer this letter dated May 20, 1943, from Mr. [1016] Remmers to the Continental Ore Company as defendant's exhibit next in order.

Mr. Alioto: No objection.

(Letter of May 20, 1943 from Mr. Remmers, Electro Metallurgical Sales Corporation to Continental Ore Company received in evidence and marked Defendant-U Exhibit 4-L.)

(Testimony of Martin Wolf.)

Mr. Archer: Letter to Continental Ore Company, attention Mr. Wolf, from Mr. Remmers, Electro Metallurgical Sales Corporation:

"This refers to your letter of May 19 on the subject of Invoice No. 24892 dated April 30, 1943.

"The price of $1.15 specified on the invoice is that which applies to all spot sales of vanadium oxide in quantities of 500 pounds or more made to anyone. This price has been established for a number of years and we do not believe that we would be justified in making any special concession in the nature of a price reduction for such material.

"We trust that with this explanation you will authorize payment of the invoice as rendered.

"Very truly yours,

"Electro Metallurgical Sales Company." [1017]

Mr. Archer: Then Mr. Wolf's reply is dated May 21, 1943, and I offer it in evidence.

Mr. Alioto: Do you want to show that to the witness so he can read it and have it in mind? I have no objection to it, your Honor—the third paragraph.

The Court: Do you have considerable material of this sort?

Mr. Archer: Yes, I do, your Honor.

The Court: Was all of this between the plaintiff and the governmental agency?

Mr. Archer: This part here is between the plaintiff and the Electro Metallurgical Sales Corporation, your Honor.

Mr. Alioto: This is private.

(Testimony of Martin Wolf.)

The Witness: Yes, sir.

Mr. Archer: I offer a letter dated May 21, 1943, as defendants' exhibit next in order.

Mr. Alioto: No objection.

(The letter referred to was thereupon marked Defendant U Exhibit 4-M in evidence.)

Mr. Archer: From Mr. Wolf to Metallurgical Sales Corporation, Attention Mr. Walter E. Remmers:

"Re: Invoice #24892/April 30, 1943

"Gentlemen:

"We received your letter of May 20 and can only [1018] repeat what we told you in ours of May 19 regarding the price which we expected to pay in view of our previous dealings with Metals Reserve.

"We never did receive a contract from you and therefore had no reason to assume that your price would be any different from that which we paid for the previous material shipped through you from Metal Reserve's stocks.

"However, we believe that we can overcome this difficulty in price resulting from the difference between spot and contract sales. We are perfectly willing to sign a contract with you for our requirements until the end of the year. At present, these requirements are estimated to amount to about 10,000 lbs. of V contained in pentoxide per month.

"This contract, at the usual price of $1.10 per lb. of V contained delivered, could then be considered as applying to the lot shipped in April.

(Testimony of Martin Wolf.)

"We hope that you can cooperate with us along these lines and look forward to hearing from you."

The Court: Just at this point, this testimony, a great deal of it, has to do with technical terms, and so on. I would like to ask this witness:

Q. (By the Court): From May, 1942, to February 29, 1944, can you name any [1019] specific act on the part of either one of these defendants, the principal defendants in this case, that had anything to do with the Nisley contract, or mill, other than what has been carried on between you and the governmental agency?

A. I don't quite get the question, your Honor.

Q. Can you name any specific act on the part of either one of these defendants during this period of time which affected your contract with Nisley & Wilson?

A. We had no contract with Nisley & Wilson at that time.

Q. What?

A. We had no contract with Nisley & Wilson at that time.

Q. Well, your dealings with Nisley & Wilson.

A. Well, nothing as far as I recall now, at this moment, beyond the fact that Nisley & Wilson had insisted on shipping their output to us, but were not able to do so.

The Court: You may proceed.

Mr. Archer: Thank you, your Honor.

Q. (By Mr. Archer): I now show you Mr.

(Testimony of Martin Wolf.)

Rich's reply to your letter dated May 25, 1943, regarding the request for another 10,000 pounds.

A. Yes, sir.

Mr. Archer: I offer this as defendants' exhibit next in order. [1020]

(The letter referred to was thereupon marked Defendant U Exhibit 4-N in evidence.)

Mr. Alioto: No objection.

Mr. Archer: Letter dated May 25, 1943, from Electro Metallurgical Sales Corporation to Continental Ore Company, Attention Mr. M. Wolf:

"Gentlemen:

"We acknowledge receipt of your letter of May 19 which constitutes an order covering 10,000 lbs. of vanadium contained in Vanadium Pentoxide in accordance with the allocation made to you by the War Production Board for May shipment.

"We note that the price shown on your order is $1.10 per pound of V_2O_5 contained in the compound. Until such time as the question of price has been decided, we will be unable to accept your order at this price since the regular market price of this material is $1.15 per pound of V_2O_5 contained in the compound.

"We will hold your order in our files until such time as the question of price has been determined and until an official release is obtained from you. In the meantime, we wish to thank you for having favored us with this business."

Q. (By Mr. Archer): You will recall, Mr. Wolf, that on May 21, 1943, you proposed to Mr. Remmers

(Testimony of Martin Wolf.)

that a contract be made so that the [1021] contract price of $1.10, instead of the price of $1.15, would apply? A. That is correct.

Q. Do you recall that? A. Yes.

Q. Before you received a reply from Mr. Remmers, Mr. Leir wrote the following letter to Metallurgical Sales Corporation on May 26, 1943, didn't he? A. That is right.

Mr. Archer: I offer this as defendants' exhibit next in order.

Mr. Alioto: We have no objection.

(The letter referred to was thereupon marked Defendant U Exhibit 4-O in evidence.)

Mr. Archer: May 26, 1943, from Continental Ore Company, Mr. Leir, to Electro Metallurgical Corporation:

"Gentlemen:

"Re: Your invoice #24892 dated April 30, 1943, Fused Vanadium Oxide.

"Please be informed that we have instructed The New York Trust Company to send you their check in the amount of $19,688.40 against your above-named invoice.

"Please note that this amount represents [1022] 17898.6 lbs. V_2O_5 at $1.10 whereas your invoice is based on a rate of $1.15.

"We are in correspondence with Mr. W. E. Remmers regarding this difference."

Q. (By Mr. Archer): I now show you a letter dated May 27, 1943, from yourself to the Electro

(Testimony of Martin Wolf.)

Metallurgical Sales Corporation, Attention Mr. Remmers on the same subject.

The Court: Was this Electro Metallurgical Sales Company acting as an agent of the Federal Government?

Mr. Archer: Not at this time, your Honor.

Mr. Alioto: Not in connection with the request for the requirements contract, either.

Mr. Archer: Not at this time.

Mr. Alioto: Even though Metals Reserve was in effect during this period of time.

A. Yes, sir.

Mr. Archer: I offer this as defendants' exhibit next in order.

(The letter referred to was thereupon marked Defendant U Exhibit 4-P in evidence.)

Mr. Archer: Letter dated May 27, 1943, from Mr. Wolf, Manager, to Electro Metallurgical Sales Corporation, Attention Mr. W. E. Remmers:

"Re: Fused Vanadium Oxide [1023]

"Gentlemen:

"We refer to our previous correspondence regarding the price of the lot you shipped to us against WPB's April allocation.

"If it is difficult for you to apply the price of $1.10 because no contract has been signed by either party, we feel that the only thing to do is to put at your disposal a like amount of fused vanadium oxide so that the entire transaction can be written off. In other words, we would replace the material shipped to us. This can be done by putting at your disposal a like amount out of the production of

(Testimony of Martin Wolf.)

Nisley & Wilson for which we hold a contract with Metals Reserve at $1.10 and which has been allocated to us.

"May we hear from you?"

Q. (By Mr. Archer): Mr. Wolf, I now show you—and I believe this is the last letter in this correspondence—a letter dated June 1, 1943, from Mr. Remmers to yourself. A. Yes, sir.

Mr. Alioto: No objection.

Mr. Archer: I offer this as defendants' exhibit next in order. [1024]

(The letter referred to was thereupon marked Defendant U Exhibit 4-Q in evidence.)

Mr. Archer: This is dated June 1, 1943, W. E. Remmers to Continental Ore Company, Attention of Mr. M. Wolf:

"Gentlemen:

"We have your letter of May 27th as well as one written on May 26th by Mr. Henry J. Leir."——

Mr. Alioto: The letter——

Mr. Archer: The letter of May 27th was the replacement.

Mr. Alioto: There was the requirements contract, but it was not answered.

Mr. Archer: This answers it (continuing reading):

"Although you propose to make a replacing shipment of fused vanadium oxide, Mr. Leir has advised us by way of our Long Island City Accounting Office that you are remitting on the basis of $1.10 per pound contained. In order to close the file on this subject, we are accepting your check

(Testimony of Martin Wolf.)

representing payment for 17,898.6 pounds of vanadium oxide at $1.10 per pound as payment in full.

"We wish to point out, however, that this adjustment in price is for the purpose of closing our present discussion and in no way establishes any precedent so far as future business is concerned. As we have indicated in our earlier correspondence, the established price on spot sales in the [1025] quantities under discussion is $1.15 per pound.

"We are issuing a credit memorandum to adjust the original invoice from $1.15 to $1.10 per pound."

This is dated June 1, 1943.

Mr. Alioto: Excuse me, counsel. In view of your statement, so the record will be clear, you will agree now that this is not in response to the letter relating to the requirements contract?

Mr. Archer: I certainly won't. It says "in order to close and terminate our present discussion."

Mr. Alioto: Counsel, it says:

"We have your letter of May 27th * * *"

You say that refers to the requirements contract?

Mr. Archer: That refers to the other.

Mr. Alioto: O. K.

Q. (By Mr. Archer): Mr. Wolf, the question I want to ask you, Mr. Remmers' letter was on June 1, 1943, and in effect it terminated this $1.10-$1.15 dispute by accepting payment at $1.10?

A. Yes.

Q. Subsequent to that date you cancelled your contract for seventeen thousand odd pounds of vanadium oxide from Nisley & Wilson at the price of $1.10, did you not?

(Testimony of Martin Wolf.)

A. Yes, for the reason the material not being in a mechanical condition as we wanted it. But Mr. Remmers was very [1026] lucky at the time, because if we had known they were selling the same material to Vanadium Corporation at 80 cents, we would not have been satisfied with $1.10.

Q. Mr. Wolf, do you know of your own knowledge that any——

Mr. Holland: I move to strike that, your Honor. The evidence shows that sale at 80 cents was made four years earlier.

Mr. Alioto: It was still during the actionable period involved here.

The Court: The objection is sustained. The jury will disregard the statement.

Mr. Archer: I am about to go to another subject.

The Court: We will recess at this time. [1027]

(Whereupon a recess was taken until 2:00 o'clock p.m.)

June 11, 1958 — 2:00 o'clock P.M.

MARTIN WOLF

a witness called by and on behalf of the plaintiffs, resumed the stand, having been previously duly sworn, and testified further as follows:

Cross Examination—(Continued)

Q. (By Mr. Archer): Mr. Wolf, I believe when we left off at noon we had come to June 1943, at the time of the cancellation of the Metals Reserve con-

(Testimony of Martin Wolf.)

tract for 17,000 pounds of Nisley and Wilson production, do you recall that? A. I do.

Q. Prior to that time we had talked about the period January 1944 when you had the Imperial Paper contract? A. That is right.

Q. You recall that you made a trip to Washington—I'm trying to summarize the exhibit because I think they are being copied—you had made a trip to Washington and they had about 50,000 pounds of the Nisley and Wilson—50,000 pounds of flakes which you presumed came from Nisley and Wilson? A. When was that?

Q. In January of 1944. A. Yes.

Q. Do you recall how much you purchased from Metals Reserve in 1944 of that supply? [1028]

A. I don't know exactly, but I think we bought —at some time we bought 5,000 pounds of that.

Q. I show you a letter dated August 4—it's really a copy of a letter—dated August 4, 1944, from Mr. Murphy to you, with, I believe, a note at the bottom, and then a letter from Metals Reserve to Continental Ore dated September 20, 1944, and then the contract dated September 26, 1944.

A. (Witness examining) Yes, sir.

Q. Is that Mr. Leir's note on the bottom of the letter, the first letter there? A. Yes.

Mr. Alioto: We have no objection, if your Honor please.

Mr. Archer: Offer these as defendant's Exhibit next in order.

(Testimony of Martin Wolf.)

(Copy of letter Metals Reserve Co. to Continental Ore Co., August 4, 1944; letter Metals Reserve Co. to Continental Ore Co., September 20, 1944; contract dated September 26, 1944, Metals Reserve Co. and Continental Ore Company—received in evidence and marked Defendant U's Exhibit 4-R.)

[See Book of Exhibits.]

Mr. Archer: Letter dated August 4, 1944, from Metals Reserve Company to Mr. Wolf.

"Dear Mr. Wolf:

"Please refer to your letter of July 25, 1944, inquiring about vanadium pentoxide.

"Our stockpile of fused vanadium oxide at East [1029] St. Louis consists of three analyses of V_2O_5; viz. 85.22 per cent—35.06 per cent—87 per cent—all in the form of flakes, and if any of this material is of interest to you, we shall be pleased to receive your offer for the given quantity.

"For your information, we no longer have the material in Colorado which was at one time of interest to you."

And the note at the bottom, apparently to Mr. Wolf, says:

"Let us discuss this on the phone. Should we not buy say"——

is that .5 tons?

A. No, 5 tons.

Mr. Archer: (Reading.)

"——5 tons for the purpose of filling our several

(Testimony of Martin Wolf.)

trial orders. I have a feeling that we could buy this material at $1.00 f.o.b. East St. Louis. How can we find out how much of it is in stock?"

And then the contract is for approximately 4,353 pounds of vanadium pentoxide at the price of $1.10 per pound to be delivered to the Long Island plant.

Q. Now, did you have some discussion with the Metals Reserve about this shipment, Mr. Wolf?

A. I don't recall. [1030]

Q. I show you copies of two letters from yourself, one dated October 26, and one dated October 31, 1944, to Metals Reserve Company, and ask you can identify those? A. (Examining) Yes, sir.

Mr. Archer: I offer these as Defendant's Exhibit next in order.

Mr. Alioto: No objection.

(Copy of letter October 26, 1944, Continental Ore Co. to Metals Reserve Co.; copy of letter October 31, 1944, Continental Ore Co. to Metals Reserve Co.—received in evidence and marked Defendant U's Exhibit 4-S.)

Mr. Archer: The first is dated October 26, 1944, from Mr. Wolf to Metals Reserve Company, Mr. M. E. Miller, Traffic Manager:

"Re: Fused vanadium oxide, Contract MR C-1 S-1477.

"Gentlemen:

"We have your letter of October 23 and your invoice of the same date.

"We are very sorry that we must raise an objection to this invoice because of the fact that there

(Testimony of Martin Wolf.)

is such a marked discrepancy between your Ledoux analysis and our Ledoux analysis."

Q. Ledoux is the company that analyzes for vanadium oxide, is that correct?

A. That analyzed this lot, yes. [1031]

Mr. Archer: (Reading.)

"We believe that we know the explanation for this discrepancy. If you will check into Ledoux' certificate of May 10, you will note that it concerns 500 bags, composed of five different lots (batches 295 to 299).

"The 44 bags we received were part of batch 299.

"It is customary and would have been the proper procedure to sample and analyze each lot separately.

"With regard to the provisions of the contract to which you refer, may we say that this contract covers 'approximately 5,049 pounds', and we assumed that the sampling and analysis, as well as determination of moisture, to which the contract refers, concerned solely these 'approximately 5,049 pounds' which you sold us. We could not assume that you intended to apply the findings arrived at on the basis of 500 bags (57,500 pounds) to a lot of 44 bags (5,136 pounds) which is what this contract calls for.

"We believe that if you will consider the above mentioned facts, you will see the merits of our point of view. We shall be pleased to receive your invoice based on the Ledoux certificate which we enclosed in our letter of October 20th. It is logical

(Testimony of Martin Wolf.)

that this certificate reflects the quality of the [1032] merchandise we actually received since it is not concerned with the 500 bags, which you have in your warehouse, but with the 44 bags you actually shipped to us."

Then Mr. Wolf's letter, dated October 31, 1944, to Metals Reserve Company, on the same subject matter.

The Court: Just a moment. Who signed the other letter?

Mr. Archer: Mr. Wolf.

"We have your letter of October 30th but are very sorry that we cannot view this matter the same way you do.

"It even appears to us that our letter of October 26 has not received the attention we believe it merits.

"We have been in this business for 25 years and know what the customs are. We can just repeat what we said on October 26th, namely, that your Ledoux certificate for 500 bags cannot possibly be considered final for 44 bags, or 8.8 per cent of the quantity referred to in your Ledoux certificate. Furthermore, your certificate covers five batches and our lot is just part of one batch.

"We can also only repeat that the contract between us deals with about 5,000 pounds only and when we accepted settlement on your sampling and analysis [1033] certificates, it was logical to assume that you had a certificate showing the analysis of

(Testimony of Martin Wolf.)

the particular lot sold to us, and not of a much larger lot which is none of our concern.

"We believe that if you will look into this matter, you will agree with our point of view."

Q. Now, Mr. Wolf, both of these letters directed to Mr. Miller, Traffic Manager, and to Metals Reserve Company, 811 Vermont Avenue, Northwest, Washington, 25, D. C., they were not concerned at all with the United States Vanadium Corporation in its activities as agent, were they?

A. No.

Q. Now, in November 1944, you were informed, were you not, of what the stocks of Metals Reserve were? You previously testified to the lead vanadates which are in this letter.

I show you a letter from yourself to the Imperial Paper and Color Corporation (handing witness).

A. (Witness examining.) [1034]

A. Yes, sir.

Q. Is that your handwriting on the side?

A. Yes, it is.

Mr. Archer: I offer this as defendants' exhibit next in order.

Mr. Alioto: No objection.

The Clerk: Defendant U's 4-T.

(The letter referred to was thereupon marked Defendant U Exhibit 4-T in evidence.)

[See Book of Exhibits.]

Mr. Archer: From Mr. Wolf to Imperial Paper and Color Corporation, dated November 1, 1944,

(Testimony of Martin Wolf.)

Attention Mr. A. F. Brown, general manager. Re: Metals Reserve Vanadium Stocks.

Q. (By Mr. Archer): This was during the period of your Imperial Paper contract, was it not, Mr. Wolf? A. That's right.

Mr. Archer: (Reading): "Gentlemen:

"We refer to your recent visit here when you wanted to get an idea as to the quantities of vanadium at present held by Metals Reserve Company or other government agencies. Unfortunately these figures are not readily available, but as far as we can ascertain, the stocks at the beginning of this year were approximately as follows:

"Ferro-vanadium, about 500,000 pounds V in the [1035] form of 40 percent ferro-vanadium;

"Vanadium pentoxide, about 1,500,000 pounds V in the form of 85 percent V_2O_5;

"Lead vanadate, about 160,000 pounds V contained."

Q. (By Mr. Archer): That's—we have already discussed the lead vanadate. These are those Otapi orders, the two shipments. A. Yes.

Mr. Archer (continuing reading): "We heard, however, that these stocks were recently reduced by the reason of the fact that the Vanadium Corporation of America, in order to fill some export orders for ferro-vanadium, bought 250,000 pounds of V contained in vanadium pentoxide from Metals Reserve. So that at the time present stocks of vanadium pentoxide should be reduced to about 1,250,000 pounds, if not lower. These figures are

(Testimony of Martin Wolf.)

arrived at on the basis of various scattered information, and as soon as more precise data are available, we will, of course, let you know."

Q. (By Mr. Archer): Mr. Wolf, this vanadium pentoxide referred to as 1,500,000 pounds V, or after the sale to V.C.A., 1,250,000 pounds V, that's generally not the way vanadium pentoxide is referred to, is it?

A. Well, it was probably the figure that we got from the Metals Reserve. [1036]

Q. Yes, but I mean, as we stated here, we generally refer to vanadium pentoxide in pounds V_2O_5?

A. Yes, but this is probably a matter of bookkeeping with the government.

Q. And it would be roughly twice that in pounds V_2O_5? A. Yes.

Q. Now, subsequent to November, 1944, did the Metals Reserve Company ever refuse to sell you vanadium oxide?

A. I don't know whether we asked them.

Q. You were in the courtroom the other day, were you not, Mr. Wolf, when——

The Court: Just a moment.

Q. (By the Court): Now, do you mean by that that if you had asked them they wouldn't have sold you?

A. I don't know; I don't know. The point, however, is that, No. 1, in the summer of '43, and all through '43, the defendants here had caused us some trouble with some customers to whom we sold the material, and further, Mr. Archer has read into

(Testimony of Martin Wolf.)

the record quite a few letters of mine to Imperial Paper where I had been trying to induce Imperial Paper to actively start in the production of ferro-manganese by offering them various raw materials. Among other things, these flue dusts and lead vanadates—— [1037]

Q. (By Mr. Archer): You said "ferro-manganese."

A. I am awfully sorry. Ferro-vanadium.

We have not yet heard the answers that came back from Imperial Paper and which show very clearly that the concern of Imperial Paper was with a steady supply of vanadium raw materials, so that they could justify the investment in going into it. I recall a particular letter from Mr. Brown, general manager of Imperial Paper, where he says that in view of the fact that there are only two people in this business who control the raw material, he feels not justified in putting out the investment until and unless we had a steady source of raw material. I think this ought to go in the record, too.

Q. (By the Court): Well, the question here is, Did you offer to buy? And if they refused to sell you any of this material on that.

A. I have no recollection as to whether we offered to buy any of this particular material. I am just trying to express the thought that at that time we had difficulties in selling to our customers; we were cut off from some of our customers. And we also had difficulties in convincing Imperial Paper,

(Testimony of Martin Wolf.)

with whom we had made a contract for the production of ferro-vanadium, to really go into the business, because of the tight control exercised by these defendants over the raw materials. [1038]

Q. Well, I don't know what you mean by that. The question is, did you offer to buy, or did they refuse to sell?

A. Well, we would have to look into the record to find out whether we offered to buy.

Q. But you didn't buy?

A. I do not believe that we bought any substantial quantities after that from Metals Reserve.

Mr. Archer: I believe that's right. I think that's what the records show.

Q. (By Mr. Archer): Mr. Wolf, now, prior to November—I was referring to Mr. Nisley, who testified here yesterday, and I believe you said you were present in the courtroom during his testimony? A. Yes.

Q. And there was the period of May and June of 1944 after he had gone into the service and Mr. Gardner had taken over the mill, and there was correspondence which is already in evidence. Do you recall that Mr. Gardner called you personally on this matter?

A. I believe that was brought out yesterday.

Q. Well, here's your memorandum dated May 22, 1944, on the subject. Do you recognize that?

A. Yes; yes, sir.

Mr. Alioto: All right.

(Testimony of Martin Wolf.)

Mr. Archer: Offer this as defendants' exhibit next in order. [1039]

Mr. Alioto: We have no objection, if your Honor please.

The Clerk: Defendant U's 4-U.

(The memorandum referred to was thereupon marked Defendant U Exhibit 4-U in evidence.)

Mr. Alioto: The mill was closed down at this time, was it not?

Mr. Archer: I think the record shows what Mr. Gardner was doing.

Mr. Alioto: I think it does.

Mr. Archer: "May 22, 1944.

"Nisley & Wilson.

"Memorandum by Mr. Wolf.

"Mr. Gardner called on May 17th. He has an opportunity now to make some leases for vanadium mines and he wanted to know whether he could contract for some vanadic acid.

"I told him that our present requirements are all taken care of, but that we expect to make some more contracts for the finished ferro, which might allow us to contract for an additional 10,000 pounds of V contained per month in the near future.

"I repeated that at the present time we could not help them out but would get in touch with him as soon as we needed additional material." [1040]

Q. (By Mr. Archer): Going to the year 1945 and the Imperial Paper and Color Corporation, Mr. Wolf, do you recall that Mr. Brown, in May, came down to New York to discuss with you and

(Testimony of Martin Wolf.)

Mr. Wolf the source of—and Mr. Leir, the source of vanadium oxide?

A. He may possibly have done that.

Q. Do you recall that it was decided at that time to attempt to purchase some from the Electro Metallurgical Company?

A. 1945? I couldn't say offhand.

Q. I show you a letter dated May 15, 1945, from yourself to Imperial Paper and Color Corporation.

A. Yes, sir.

Mr. Archer: I offer this as defendants' exhibit next in order.

Mr. Alioto: No objection.

The Clerk: Defendants' U 4-V.

(The letter referred to was thereupon marked Defendant U Exhibit 4-V in evidence.)

Mr. Archer: This is from Mr. Wolf to Imperial Paper and Color Corporation, Mr. A. F. Brown, General Manager:

"Re: Fused Vanadium Pentoxide for trial.

"Gentlemen:

"We have your letter of May 11th and believe that your idea of trying out ferro-vanadium on the basis [1041] of purchased V_2O_5 is a good one. Therefore we have bought for your account 200 pounds of fused vanadic oxide.

"As you will notice, the price is $1.15 because of the fact that it is a small quantity and a spot lot. The price in regular quantities is $1.10.

"The material is Electro Met's usual quality. Of course, it may vary slightly, but we found that the

(Testimony of Martin Wolf.)

analysis did not vary much whenever we bought from them.

"We selected the material in the form of flakes because crushed material contains too many fines, and thereby causes a loss during processing. Therefore we always found flakes much more advantageous, and believe that you will have the same experience.

"We will forward the material to you as soon as we receive it."

Q. (By Mr. Archer): I now show you your notice dated May 22, 1945, together with the bill of lading from Electro Metallurgical to Continental Ore, addressed to yourself, and ask you whether you can identify it. A. Yes, sir.

Q. I notice the bill of lading there says, "2 bags ore, NOIBN."

A. "N-O-I-B-N," yes.

Q. That means "Not otherwise"—— [1042]

A. "Not otherwise identified by name." That is a rate order expression.

Q. For the freight?

A. There is no particular tariff.

Mr. Alioto: No objection.

Mr. Archer: Offer this as defendants' exhibit next in order.

The Clerk: Defendant U's 4-W.

(The letter referred to was thereupon marked Defendant U Exhibit 4-W in evidence.)

Mr. Archer: Letter dated May 22, 1945, from Mr. Wolf to Imperial Paper and Color Corpora-

(Testimony of Martin Wolf.)

tion, Attention Mr. A. F. Brown, General Manager:

"Re: 200 pounds fused vanadium oxide.

"Please be informed that we received a shipping advice from Electro Metallurgical Sales Corporation. Two bags are now in transit. They weigh gross 234 pounds, tare 4, net 230, with a content of 86.40 percent V_2O_5. We shall forward the bags to you as soon as we receive them."

And here is the bill of lading from Electro Metallurgical Sales Corporation to Continental Ore Corporation, Attention Mr. Wolf.

Q. (By Mr. Archer): Now, Mr. Wolf, when was the next time you attempted to [1043] get vanadium oxide from Electro Met?

A. I can't tell.

Q. Did you try to get it from Electro Met?

A. I wouldn't know that now. The record will show that. I would have to look in my records.

Q. You have no recollection of trying to get vanadium oxide again from Electro Met?

A. You probably have some.

Q. Well, Mr. Wolf, haven't you testified here that one of your complaints is that you can't get vanadium oxide from the defendants?

A. That's right.

Mr. Alioto: During a certain period.

The Witness: That's right.

Q. (By Mr. Archer): Now, prior to 1949?

A. '49, yes, that's correct.

Q. Well, I show you now a contract dated Jan-

(Testimony of Martin Wolf.)

uary 29, 1946, four months after the war is over, between the Continental Ore Company and the Electro Metallurgical Sales Corporation, and ask you if you can identify it. A. Yes, sir.

Mr. Archer: Offer this as defendants' exhibit next in order.

Mr. Alioto: No objection. [1044]

The Clerk: Defendant U's 4-X.

(The contract referred to was thereupon marked Defendant U Exhibit 4-X in evidence.)

[See Book of Exhibits.]

Mr. Alioto: May I have that date again, Mr. Archer, please?

Mr. Archer: January 29, 1946.

Mr. Alioto: Thank you.

Mr. Archer: This is a contract signed by Mr. Wolf and Mr. Vogt, to the Electro Metallurgical Sales Corporation, dated January 29, 1946 (reading):

"Electro Metallurgical Sales Corporation agrees to sell and Continental Ore Company of New York, New York, agrees to buy, buyer's domestic manufacturing requirements of the following material: Vanadium pentoxide; price; any quantity; Eastern zone; $1.10; requirements estimated to be approximately 1,000 pounds per month. Prices are per pound of vanadium pentoxide contained in the compound."

Q. (By Mr. Archer): Do you recall now, Mr. Wolf, that you requested this contract?

A. Yes, for a special purpose.

(Testimony of Martin Wolf.)

Q. What was the special purpose?

A. Well, by that time Electro Met had cut us off from some of our customers—— [1045]

The Court: Now, just a moment. I don't want to interfere at all, but just answer the question.

The Witness: I am answering the question, your Honor.

The Court: I understand, but you are stating conclusions here which would be objectionable.

The Witness: All right.

A. (Continuing) We had at that time lost as partners in this field Apex Smelting, who had previously manufactured ferro-vanadium in conjunction with us as our partners.

We had likewise lost Climax Corporation, who had done the same thing for us, and did not continue because of interference by the defendants with Climax.

We had also lost by that time the active interest of Imperial Paper and Chemical, because of the fact that the raw materials supply was so precarious. When the war ended I figured that there will be a need for vanadium in the export market, and in order to assure for ourselves a price of $1.16 instead of $1.15 on spot purchases, I suggested that we might be able to get a contract from Electro Met, especially since in the meantime the Department of Justice had started to investigate the setup in the vanadium field, and we felt that Electro Met could not possibly refuse to give us such a contract. The contract was intended as a

(Testimony of Martin Wolf.)

basis for exports of vanadium oxide—the request. When the contract came back it [1046] was limited to our domestic manufacturing requirements, which at that time were not in existence any more. So this contract was actually of really no use to us any more, because we had been effectively eliminated from the market domestically, and we couldn't use this contract for export shipments. So we kept this contract in our files and kept renewing it because it had one slight advantage: it had the advantage of our being notified two weeks before it got into the newspapers that any price changes, because the contract provides for notification of their customers with a two-weeks' notice of any change in price. And that was the only use that I believe we ever made of this contract, and that was the intent of this contract.

Q. (By Mr. Archer): Mr. Wolf, haven't you just testified that one of your complaints here is that up to 1949 the defendants had refused to sell you vanadium oxide?

A. The defendants have not—no, have not refused.

Q. Didn't you just testify to that?

A. Excuse me. The defendant—I don't think, first, that it is very good practice to base an investment and a business on raw material procured from your competitors after your competitors have tried by all means possible to eliminate you from the market. So what we are trying—what we were trying to do is get vanadium oxide

(Testimony of Martin Wolf.)

and vanadium raw materials [1047] from other sources which, however, the defendants have consistently cut off from us.

Q. Then you are not complaining that the defendants refused to sell you vanadium oxide from January 21, 1946, on, are you?

A. I wouldn't put it this way, Mr. Archer. I will just say that at that time it was difficult to compete——

The Court: No. Answer the question, will you?

Q. (By the Court): The question is, Did they refuse to sell you this material during this period?

A. They did not refuse a contract for a thousand pounds a month for our manufacturing requirements domestically. [1048]

Q. (By Mr. Archer): Now, was it your position that you requested this for foreign sales?

A. I had in mind foreign sales, yes, sir.

Q. Did they ever refuse to sell you oxide for foreign sales under it?

A. I don't know whether we asked them because this contract, written by them, obviously had the limitation of the domestic manufacturing requirements.

Q. Did you protest when it was sent to you in that form?

A. No, I don't think so. I thought—we were at that time—at that time we were anticipating that perhaps this industry would be opened up by government action which had been instituted at that time, the same as the aluminum industry was

(Testimony of Martin Wolf.)

opened before anybody else could get into it besides the Aluminum Company of America.

Q. This was your contention in the law suit——

A. That is right. That is right.

Q. So you are sort of arguing your case right now? A. Correct.

Mr. Alioto: That is objected to, if your Honor please, as argumentative.

The Court: Well, it is argumentative entirely. And the witness, if you will just answer the questions.

A. Yes, your Honor.

Q. (By Mr. Archer): Now, as a matter of fact, Mr. Wolf, [1049] you inserted the 1,000 pounds a month in the requirement, didn't you? A. Yes.

Q. I now show you your letter from Mr. Wolf to Electro Metallurgical Sales Corporation, dated January 21, 1946.

Mr. Alioto: You don't have to identify it, Mr. Archer. We have no objection.

Mr. Archer: What's that?

Mr. Alioto: We have no objection regarding that.

Mr. Archer: I offer that as defendant's exhibit next in order.

Mr. Alioto: No objection.

(Letter of January 21, 1946, from Mr. Wolf, Continental Ore to Electro Metallurgical Sales, received in evidence as Defendant-U Exhibit 4-Y.)

Mr. Archer: It is from Mr. Wolf to Electro

(Testimony of Martin Wolf.)

Metallurgical Sales Corporation, January 21, 1946, attention Mr. Voght:

"Re: Vanadic Acid.

"Gentlemen; we refer to our recent telephone conversation when we suggested that you kindly let us have your usual contract form for our yearly requirements of vanatic acid.

"We would like to enter into such an agreement with you and hope to hear from you shortly."

I offer as defendant's exhibit next in order letter dated January 29, 1946 from Electro Metallurgical Sales Corporation to Continental Ore, together with copy of enclosure, which is another form of the same contract.

(Letter of January 29, 1946 from Electro Metallurgical Sales Corporation to Continental Ore, enclosure contract, received in evidence as Defendant-U Exhibit 4-Z.)

[See Book of Exhibits.]

Mr. Archer: This is dated January 29, 1946, from Mr. Voght, Secretary, Electro Metallurgical Sales Corporation, to Continental Ore Company, attention Mr. Martin Wolf, Manager.

"Gentlemen:

"In compliance with your request we are enclosing herewith our standard form of agreement covering your requirements of vanadium pentoxide.

"We have left blank the quantity you estimate that you may require so that you may fill in the amount estimated to be your approximate monthly requirements.

(Testimony of Martin Wolf.)

"If you will please sign both copies of the agreement and return them to us we shall be glad to return an approved copy for your files."

Q. And you are the one that put in the 1,000 pounds a month, are you not?

A. I said that before, yes, sir. [1051]

Q. (By Mr. Archer): As defendant's exhibit next in order I offer Mr. Wolf's reply, dated January 30, 1946, to Electro Metallurgical Sales Corporation.

Mr. Alioto: We have no objection.

(Letter of January 30, 1946, Continental Ore to Electro Metallurgical Sales Corporation was received in evidence as Defendant-U Exhibit 5-A.)

Mr. Archer: Letter from Mr. Wolf to Electro Metallurgical Sales Corporation, attention Mr. Vogt, Secretary, "Re: Vanadium Pentoxide.

"We received your letter of January 29 and take pleasure in returning duly signed two copies of your contract.

"Kindly return one copy with your approval for our files.

"Thank you for your cooperation.

"Very truly yours,

"Continental Ore Company, Martin Wolf."

Mr. Archer: And as defendant's exhibit next in evidence I offer Mr. Vogt's reply to the Continental Ore Company dated January 31, 1946.

Mr. Alioto: No objection.

(Testimony of Martin Wolf.)

(Letter of January 31, 1946, Electro Metallurgical Sales to Continental Ore Company was received in evidence and marked Defendant-U Exhibit 5-B.) [1052]

Mr. Archer: January 31, 1946, from Mr. Vogt to Continental Ore Company, attention Mr. Martin Wolf, Manager:

"Gentlemen:

"We are returning duly approved original copy of the agreement between us for vanadium pentoxide, this to be retained by you for your files.

"We appreciate the placing of this business with us and you have our assurance that any requirements placed with us will always have our prompt and careful attention."

Q. Mr. Wolf, I believe you testified in your direct examination in regard to certain Government regulations. I show you what is General Preference Order Priority Order M23-a on vanadium. It is copied from the American Metal Market of December 23, 1941. The order is dated December 20, 1941, which we obtained from your files, and ask you if that is one of the orders you referred to?

A. Well, I would have to read the whole order in order to confirm that. If you want me to, I will.

Q. Well, it is correct.

Mr. Alioto: Subject to correction, we have no objection to it being introduced.

Mr. Archer: Offer this as defendant's exhibit next in order. [1053]

(General Preference Order M23-a on Vana-

(Testimony of Martin Wolf.)

dium was received in evidence and marked Defendant-U Exhibit 5-C.)

Mr. Archer: The controlling part of this—— Well, I will read the preface. This is dated December 20, 1941, signed by D. M. Nelson, Director of Priorities, Office of Production Management:

"Whereas the National Defense requirements have created a shortage of vanadium as hereinafter defined for defense, for private account, and for export, and it is necessary in the public interest and to promote the defense of the United States to supplement by further measures the action heretofore taken to conserve the supply and direct the disposition hereof:

"Now, Therefore, It Is Hereby Ordered That:—" There are several definitions and then it states:

"Restrictions on Deliveries, Allocations. Hereafter no person shall make or accept delivery of Vanadium unless specifically authorized by the Director of Priorities. The Director will from time to time allocate the supply of vanadium and specifically direct the manner and quantities in which deliveries to particular persons or for particular uses shall be made or withheld. The Director may also, in his discretion, require any [1054] person seeking to replace a purchase order for Vanadium to place the same with one or more particular suppliers. Such allocations and directions will be made primarily to insure satisfaction of all defense requirements of the United States, both direct and indirect, and they may be made in the discretion

(Testimony of Martin Wolf.)

of the Director of Priorities without regard to any preference ratings assigned to any particular contract or purchase orders. The Director of Priorities may also take into consideration the possible dislocation of labor and the necessity of keeping a plant in operation so that it may be able to fulfill defense orders and essential civilian needs."

The rest refers to reports and violations.

The Court: What is the date of that order?

Mr. Archer: December 20, 1941.

Mr. Alioto: Do you have the termination date, Mr. Archer?

Mr. Archer: No, I don't.

Mr. Alioto: Can we agree it was December of '43?

Mr. Archer: Well, it was modified on that date. It wasn't terminated. The power was still in the Director until the war ended. [1055]

Q. Now, Mr. Wolf, you have also testified, I believe, as to price controls, have you not?

Mr. Alioto: No, I don't think so.

A. No, I don't think so.

Mr. Alioto: If you want to offer the Price Regulation, we have no objection.

Q. (By Mr. Archer): Were they part of the Government Regulations that existed after you arrived in this country? A. That's right.

Q. When you first got here they had what was called the General Price Control which fixed prices as of March, 1942, or some such date, isn't that correct?

(Testimony of Martin Wolf.)

A. When I first arrived here—I believe that is true. [1056]

Q. And then subsequently they issued an order specifically setting the prices for vanadium products, and the order is dated November 2, 1943.

Mr. Alioto: Mr. Archer, we have no objection to putting the order in.

Mr. Archer: Offer that as Defendant's Exhibit next in order.

(General price control, Office of Price Administration, November 2, 1943, received in evidence and marked Defendant U's Exhibit 5-D.)

[See Book of Exhibits.]

Mr. Archer: I will read the preface and a few of the prices. This is from the Office of the Price Administration—I guess most of us are familiar with price controls—dated November 2, 1943:

"In the judgment of the Price Administrator, it is necessary and proper to establish maximum prices for sales of tungsten, molybdenum, vanadium, cobalt, and certain other alloys and metals by a specific maximum price regulation. The Price Administrator has ascertained and given due consideration to the prices of tungsten, molybdenum, vanadium, cobalt and certain other alloys and metals covered by this regulation prevailing between October 1 and October 15, 1941, and has made adjustments for such relevant factors as he has determined and deemed to be of general applicability. [1057] So far as practicable, the Price Adminis-

(Testimony of Martin Wolf.)

trator has advised and consulted with representative members of the industry which will be affected by this regulation. In the judgment of the Price Administrator the maximum prices established by this regulation are and will be generally fair and equitable and will effectuate the purposes of the Emergency Price Control Act of 1942 as amended. A statement of the consideration involved in the issuance of this regulation is issued simultaneously herewith, and has been filed with the Division of the Federal Register. Such specification and standards as used in this regulation were prior to such use in general use in the trade or industry affected."

Q. Now, the maximum base prices for ferrovanadium are the prices $2.70, $2.80, $2.90, to which we have referred and which are on the board.

The vanadium pentoxide prices, maximum base contract price, any quantity, $1.10.

Maximum base spot price, 500 pounds and over, $1.15.

Less than 500 pounds to 10 pounds, $1.20.

Under 10 pounds, $1.25.

Now, Mr. Wolf, you testified in your direct examination Van-Ex, which you sold in the period '42, '43 or thereabouts. [1058]

A. That's right.

Q. You were familiar with its composition, were you not? A. Yes.

Q. And when was the last time—well, I will withdraw that.

(Testimony of Martin Wolf.)

Where was Van-Ex made?

A. Well, it was made, first, at Apex and then in our Long Island shop.

Q. When you say made by Apex, it was made by the Apex employees for your account, I take it?

A. That is right.

Q. And then you made it in your own shop at Long Island? A. That is right.

Q. Was it made any place else?

A. No, I don't believe so.

Q. Well, when did you close the Long Island plant?

A. I couldn't tell you any more than that.

Q. Could you tell me the year?

A. No, I don't know the year.

Q. '44? '45?

A. I believe it was '44.

Q. Well, it certainly wasn't—it wasn't open in '46, was it?

A. No. No, it was not open in '46. '44-'45.

Q. So then you had no facilities for making Van Ex after you closed the Long Island plant, did you? [1059] A. No.

Q. Van-Ex had something in it besides fused black oxide, didn't it? A. Yes.

Q. You wouldn't have sold it as just pure fused black oxide at the $2.40 price during this period, would you? A. No.

Q. There are two reasons why: Because you told the steel companies there was something special in it, and the other reason was that it would

(Testimony of Martin Wolf.)

be above the maximum prices for pure vanadium oxide?

A. Well, that is partly correct. There was a packaging factor that came in, too.

Q. You might add a little bit for packaging?

A. That is right.

Q. Prior to 1949 and after you became connected with the Continental Ore Company, did you ever sell as Van-Ex a product which was only fused black oxide?

A. Not if our instructions were followed, to add the usual ingredients.

Q. Whose instructions, yours?

A. Ours—our instructions.

Q. You manufactured it last at the Long Island plant, didn't you? A. That's right. [1060]

Q. So that was your own employees there?

A. That is correct.

Q. Did you ever instruct anybody besides your own employees at your Long Island plant or the Apex Smelting Company to add something to fused black oxide to make Van-Ex?

A. Yes. I remember correspondence with Apex as to the best additions to be used, such as fluorspar, aluminum, ferro-silicon, things like that.

Q. I mean other than Apex and your own employees at the Long Island plant. A. No.

Q. So nobody else made Van-Ex?

A. Not to our knowledge. They couldn't. This was a trade-mark.

Q. Mr. Wolf, I show you an invoice of the

(Testimony of Martin Wolf.)

Continental Ore Company dated May 24, 1946, to the Sulzer Brothers, Limited, in Winterthur, Switzerland, for 10 drums, 204.5 pounds, Van-Ex, containing 100 pounds metallic vanadium at $2.40 per pound, f.o.b. New York, and ask you whether you can identify that.

A. (Witness examining) It looks like an invoice of ours.

Mr. Archer: I offer this as Defendant's exhibit next in order.

Mr. Alioto: No objection.

(Invoice, Continental Ore Co., May 24, 1946, to Sulzer Bros. Ltd., Switzerland, received in evidence and marked Defendant U's Exhibit 5-E.) [1061]

[See Book of Exhibits.]

Mr. Archer: This invoice is dated May 24, 1946, Invoice on the Continental Ore Company, 500 Fifth Avenue, New York, to Sulzer Brothers, Limited, in Switzerland. Ten drums 204.5 pounds Van-Ex containing 100 pounds metallic vanadium at $2.40 per pound f.o.b. New York.

Q. Now, Mr. Wolf, did you have anything to do with this shipment?

A. What do you mean by that?

Q. Did you arrange for the purchase of Van-Ex or the making of the Van-Ex?

A. We may have—for all I know, we may have had it in stock. I didn't mix it myself.

Q. Do you recall the transaction at all?

A. No.

(Testimony of Martin Wolf.)

Q. Mr. Wolf, was there in that shipment of Van-Ex anything other than fused black oxide?

A. There should be, yes.

Q. Was there?

A. I haven't analyzed it. How would I know. I am sure there must be.

Q. I show you now, Mr. Wolf, a letter from you to the Electro Metallurgical Sales Corporation, dated March 21, 1946, attention Mr. W. E. Vogt, and ask you whether you can identify that letter?

A. (Witness examining) Yes, sir. [1062]

(Counsel examining.)

Q. (By Mr. Archer): While your counsel is looking at that, I will show you the bill of lading.

A. (Witness examining) Yes, sir.

Q. Would you identify this handwriting? It is either Mr. O'Heir's or Mr. Vogt's, but the handwriting on this letter is not yours, is it, Mr. Wolf?

A. I didn't look at it.

Q. Well, it is obviously not. It is the original, so you wouldn't have had it in your hands. You can take a look at it. It changes "cans" to "drums" and so forth.

A. (Witness examining) No, it is not mine.

Mr. Archer: I offer this as Defendant's exhibit next in order.

Mr. Alioto: No objection.

(Letter Continental Ore Co. to Electro Metallurgical Sales Corp., March 21, 1946, received in evidence and marked Defendant U's Exhibit 5-F.)

[See Book of Exhibits.]

(Testimony of Martin Wolf.)

Mr. Archer: Next offer the bill of lading as Defendant's exhibit next in order.

(Bill of lading, Electro Metallurgical Company, to Continental Ore Company, April 24, 1946, "10 drums ore" received in evidence and marked Defendant U's Exhibit 5-G.)

Mr. Archer: Letter dated March 21, 1946, from Mr. Wolf to the Electro Metallurgical Sales Corporation—— [1063] This was after you had the requirements contract, was it not, Mr. Wolf?

A. That was in January. Yes.

Mr. Archer: (Reading)

"Re: Vanadium Pentoxide.

"As a trial lot we would very much appreciate receiving from you 100 pounds of metallic V contained in V_2O_5 packed in steel cans, each containing exactly 10 pounds metallic V in the form of V_2O_5.

"Some time ago you advised us that for such special packing you would ask a premium of $0.065 per pound of V_2O_5 (for quantities below 2000 pounds) which would have to be added to the contract price of $1.10 per pound of V_2O_5.

"We would very much like to have these 10 cans placed in a box, and will give you shipping instructions as soon as you can tell us when the material is expected to be ready.

"As mentioned before, this is a trial lot, and if it works out as we hope it will, we can follow this up with larger and regular orders.

(Testimony of Martin Wolf.)

"Looking forward to hearing from you at your early convenience,

"Very truly yours, Continental Ore Company, Martin Wolf." [1064]

The bill of lading is dated April 24, 1946, from the Electro Metallurgical Company to Continental Ore Company, "10 drums ore N.O.I.B.N."

Q. That is same destination, isn't that correct?

A. Correct.

Mr. Archer: (Reading)

"224 pounds."

Q. Now, the fact of the matter is, Mr. Wolf, that in 1946 you sold a shipment of Van-Ex which was nothing other than Electromet's oxide, is that correct?

A. I can't affirm that now.

Q. Well, can't you tell from reading the letter?

A. Well, this is a very small lot and I don't know where it could have been mixed, if it was mixed. I don't know. I couldn't tell.

Q. Who packed it?

A. Someone in the organization. At that time I didn't pack things any more.

Q. Well, didn't Electro Met Sales Corporation pack it for you?

A. I don't know whether it went in the original drums. I can't tell you.

(Discussion between counsel.)

Q. (By Mr. Archer): Well, Mr. Wolf, look at the "10 drums ore N.O.I.B.N." from the bill of lading from the Electro [1065] Metallurgical Com-

(Testimony of Martin Wolf.)

pany and the weight of that, and look at your 10 drums shipment on your invoice to Switzerland.

A. Mr. Archer, I don't have to look at this. We were in the habit of re-packing shipments because it is usual in our trade that you don't ship in the original drums, because usually the original drums show where the material comes from, and I would not give my customer, Sulzer in Switzerland, the pleasure of going back directly to Electro Met and ordering the material directly. So I am fairly sure it was repacked.

Q. Well, did you make the Van-Ex in Long Island?

Mr. Alioto: There is a weight differential, isn't there, here, Mr. Archer?

Mr. Archer: Will you let me please complete my examination?

Q. Did you pack it?

A. For 200—for 10 little drums, 200 pounds, I don't need a shop to repack. I can do that in the office.

Q. Oh, so you made Van-Ex at other places besides Apex and Long Island?

A. We did not make it in the sense of fabricating, but we may have sent out a trial lot with the idea that if it goes over we will open the shop again.

Q. Well, do you recall——

A. I am convinced, Mr. Archer, that these original drums did not go over to Switzerland, simply for the reason of the marking. [1066]

(Testimony of Martin Wolf.)

Q. Well, you could put new labels on them without opening the drums.

A. They are usually stenciled on and we can't get them off. You have to scratch the tin off.

Q. Mr. Wolf, you did then make Van-Ex at places other than Apex and Long Island?

A. I will go so far as to say that maybe for a trial lot, yes.

Q. Now, do you recall this specifically?

A. No.

Q. Right now? A. No.

Q. You have no recollection?

A. I just know from general practice that we never shipped out anything in original containers if we can possibly help it because we don't give away our sources of raw materials.

Mr. Alioto: Counsel, as a matter of fairness, would you have any objection to reading to the Jury the weights in each one of those, the weight here and the weight on the invoice? On your invoice?

Mr. Archer: The weight on our invoice is 224 pounds.

Mr. Alioto: Yes.

Mr. Archer: The weight on the invoice [1067] from the Continental Ore Company is lighter, 204.5 pounds, indicating something was taken out.

Mr. Alioto: Or that it had been repacked.

A. That's right.

Mr. Alioto: That is what it indicates.

Mr. Archer: When was the last contract you

(Testimony of Martin Wolf.)

made with Electro Metallurgical Sales Corporation for the purchase of vanadium oxide, Mr. Wolf? Prior to the commencement of this action? Mr. Leir's contract of December '46 is already in evidence.

A. I couldn't tell you that.

Q. (By Mr. Archer): Well, I show you the contract dated September 10, 1948, between Electro Met and yourself.

A. (Witness examining.) Yes, sir.

Mr. Archer: I offer that as Defendant's Exhibit next in order.

Mr. Alioto: We have no objection to that.

(Contract between Electro Metallurgical Sales Corp. and Continental Ore Co. September 10, 1948, received in evidence and marked Defendant U's Exhibit 5-H.)

[See Book of Exhibits.]

Mr. Archer: The last exhibit is a contract dated September 10, 1948, between the plaintiff and Electro Metallurgical Sales Corporation, in which Electro Met agrees to sell and Continental agrees to buy the "buyer's domestic manufacturing requirements of vanadium oxide." [1068]

Q. Oh, one other thing, you will notice, Mr. Wolf, that although your contract in January of 1946 referred to "domestic manufacturing requirements," that this purchase in March of '46 was in fact a purchase of vanadium oxide for shipment overseas, was it not? A. Yes.

(Testimony of Martin Wolf.)

Q. It was neither domestic nor was it manufacturing, was it?

A. That is right. But I don't know when we bought this 200 pounds whether we referred to that contract or whether this was a separate transaction, I don't know.

Q. Well, you notice $1.10 per pound?

A. I really don't know. I don't know. It could be.

Q. It was the contract price, at any rate?

A. Yes.

Q. And even though this did go overseas, subsequent to that time the Electro Metallurgical Sales Corporation continued to enter into your requirements contracts with you, did they not?

Mr. Alioto: Object to the question because it assumes something not in evidence, namely, that exactly the same material went overseas. These documents show on their face there were different weights; therefore, it must have been a different container.

Mr. Archer: Are you contending that the oxide that they sold to Switzerland was not purchased from Electro Metallurgical Sales Corporation?

Mr. Alioto: I am not contending that at all. You are contending it was the same container that they got from Electro Metallurgical Sales that went to Switzerland. The evidence is to the contrary.

The Court: Well, the papers speak for themselves.

Mr. Alioto: I would respectfully submit, if your

(Testimony of Martin Wolf.)

Honor please, that those documents ought to be stricken because there is a variation in the weight and therefore they become entirely immaterial. There is no tie-up.

Mr. Archer: You get your general ledger in here and——

Mr. Alioto: You can get the general ledger in, we gave it to you.

The Court: Overruled. Let's get along.

Q. (By Mr. Archer): Now, my question was, Mr. Wolf, whether although the shipment of vanadium oxide that you purchased from Electro Metallurgical Sales Corporation went overseas, that nevertheless Electro Metallurgical Sales Corporation continued to enter into the requirements contracts up to the time of this suit.

Mr. Alioto: We will object to the question on the ground that it assumes the same container from Electro Metallurgical went overseas, and that is not the evidence, Judge.

The Court: Overruled. Let's get along. [1070]

Q. (By Mr. Archer): Do you have an answer to that?

A. Well, I said before, it was extremely kind of them.

The Court: Read the question.

(Pending question read back by the reporter.)

The Court: You can answer that yes or no.

A. "Yes," I will answer that.

Mr. Archer: I have no further questions.

(Testimony of Martin Wolf.)

Mr. Holland: Does the Court prefer to take the recess before I start?

(Short recess taken.) [1071]

Cross-Examination

Q. (By Mr. Holland): Mr. Wolf, I believe you stated when Mr. Archer was cross-examining you that you didn't buy some flue dust from Peru because Vanadium Corporation had shut down its plant in Peru and was not operating during this period, is that correct? A. That's right.

Q. Do you not know as a matter of fact that the Vanadium Corporation operated its mines and plant in Peru continuously from 1938 to 1949?

A. There was a period I think early in '30 when they shut down because the high-grade——

Q. I am talking about the period of '38 to '49.

A. Then they shipped not ore, but I think concentrates.

Q. But they did operate in Peru from '38 to '49, is that correct? A. That's right.

Q. Now, you have testified about Van-Ex and what it was. Just what was it, Mr. Wolf?

A. It was a vanadium oxide with certain ingredients that we put in it.

Q. I believe you said silicon and fluorspar?

A. Ferro-silicate.

Q. Pardon me? A. Ferro-silicon. [1072]

Q. And fluorspar?

A. And fluorspar—and/or.

Q. And what?

(Testimony of Martin Wolf.)

A. And/or fluorspar. I think we left out the fluorspar later. It is the same material that Electro Met makes now. They are making a——

Q. Regardless of that, I am trying to find out what you were making.

A. All right. It was copied.

Q. Now, you came with Continental on January 2, 1942, is that correct?

A. Yes. I was in their office before.

Q. And you were in their office before the——

A. That's right.

Q. When was that?

A. Well, I came here first in September of '40, and I went to Cuba in June, '41, so in between that time I was mostly in the office of Continental, in and out, on certain problems.

Q. And then from June, '41, to January, '42, you were not in the office, is that correct?

A. No, that's correct.

Q. Were you familiar, when you first came to work at Continental, with the fact that Van-Ex had started, or had been under consideration just shortly before you came for the [1073] first time?

A. I don't recall that.

Q. Pardon me?

A. I don't recall that.

Q. Do you recall whether or not you were selling Van-Ex at the time you came with Continental?

A. I think we started very shortly thereafter, or I started very shortly thereafter, yes.

Q. Started shipping? A. That's right.

(Testimony of Martin Wolf.)

Q. Then the first shipment was subsequent to that time?

A. I don't know whether it was the first.

Q. Were you familiar with the various experiments that were made in an attempt to arrive at a correct formula for Van-Ex?

A. At Apex?

Q. At Apex, with your——

A. Not particularly.

Q. ——collaboration? A. No.

Mr. Holland: Do you want this to be identified?

Mr. Alioto: You won't have to identify any letter if you will tell me it's authentic, Mr. Holland.

Mr. Holland: It is a copy from Mr. Leir's files, Continental Ore. [1074]

Mr. Alioto: Yes. We will stipulate to it and you won't have to have any trouble. We have no objection to it going in.

Mr. Holland: Offer it as our first exhibit, V. We would be another defendant.

The Clerk: V-1—Defendants' V-1.

(The letter referred to was thereupon marked Defendant V Exhibit 1-A in evidence.)

[See Book of Exhibits.]

Mr. Alioto: May we have the date of that letter?

Mr. Holland: Yes. It's a letter from Continental Ore Corporation's Mr. Leir to Apex Smelting, Attention Mr. (name obscured by courtroom noise), dated November 5, 1941, reading as follows:——

(Testimony of Martin Wolf.)

Mr. Alioto: Excuse me. Of course, it is clear at that time the witness was not here?

Mr. Holland: He came shortly after, and I would be very glad to introduce these through Mr. Leir if you prefer.

Mr. Alioto: I have no preference. You do it any way you want, Mr. Holland.

Mr. Holland (reading): "Following our conversation of last Saturday, we have already contacted several of our customers in regard to exothermic vanadium."

Q. (By Mr. Holland): Now, by "exothermic vanadium," Mr. Leir was referring to Van-Ex, was he not? [1075]

A. I would assume so, yes.

Mr. Holland (continuing reading): "——and we want to tell you the reaction is absolutely favorable. 1, we expect to have a very satisfactory price for this new vanadium compound, as we call it. 2, we will easily sell whatever quantities we can produce. We see from the correspondence——"

well, I will skip the part that doesn't refer to Van-Ex (continuing reading):

"We see from your correspondence with Blanding that Mr. Molenski is going to visit you around November 10th."

Q. (By Mr. Holland): Mr. Molenski was one of the principals of the Blanding Mines, is that correct? A. That's right.

Mr. Holland (continuing reading): "He is probably on his way to the East, and we must do every-

(Testimony of Martin Wolf.)

thing to prevent him from dealing with other parties. We think you should offer him $1.05 delivered Chicago until further notice, and tell him that if his material proves to be reliable in quality, and particularly if he could increase the quantities, you will consider going up to $1.10. As a matter of fact, our calculation for the exothermic vanadium is [1076] already based up on the $1.10 price delivered Chicago. As you can see from the following figures, $1.10 per pound V_2O_5 times 178——"

Q. (By Mr. Holland): That is the factor to convert it to V, is that right?

A. That's right.

Mr. Holland (continuing reading): "——1.958 dollars per ton V, plus 4.2 cents, equals $2.00, plus 10 cents for aluminum, equals $2.10. The prices we offer depend upon the customer, between $2.30 and $2.35, and we felt pretty certain we could get them. Therefore you can see for yourself that we should go up to $1.10 if necessary in order to secure the material for ourselves, and as much material as possible."

The Court: Who wrote the letter?

Mr. Holland: This was written by Mr. Leir of Continental Ore.

Mr. Alioto: Not the witness.

Mr. Holland: Not the witness.

Mr. Alioto: Who wasn't here.

The Court: Who?

Mr. Holland: Mr. Leir.

The Court: To whom was it written?

(Testimony of Martin Wolf.)

Mr. Holland: It is written to the Apex Smelting [1077] Company.

The Court: Oh.

Q. (By Mr. Holland): Mr. Wolf, it would appear from this letter, would it not, that originally it had been intended to put aluminum into the——

A. That's right.

Mr. Alioto: I submit, if your Honor please, it is not proper to inquire from a witness what appears in a letter he didn't write, when he wasn't even in the country.

The Court: If he knows.

Mr. Alioto: He is asking him to comment upon what appears in a letter. I think that's——

Mr. Holland: I next offer in evidence a letter from Mr. Leir to Apex Smelting, dated November 25, 1941.

Mr. Alioto: No objection.

The Clerk: Defendants' V 2-A.

(The letter referred to was thereupon marked Defendant V Exhibit 1-B in evidence.)

Mr. Holland (reading): "We have your letter of November 18th, to which we can now answer, as we have just received the samples.

"Our opinion is that the finer the vanadium is ground, the better the reaction will be in the steel furnace.

"The difference between a quarter-inch and an eighth-inch is certainly [1078] not important, but you should notify all your suppliers to ship from

(Testimony of Martin Wolf.)

now on only material ground down to one-eighth-inch.

"Any material you have in stock which is a quarter-inch should, of course, be used as is without any grinding. However, we have something else in mind in this connection.

"Don't you think it would be a good idea to add a little bit of powdered fluorspar, for two reasons:

"One, you would make the whole mixture a little more complex for the one who analyzes it and wants to imitate it; two, we are convinced that some fluorspar will have an excellent effect with regard to the better fluxing of Van-Ex."

I now offer in evidence letter of November 27th from Mr. Leir to Apex, I guess.

Mr. Alioto: If your Honor please, I just wonder whether this shouldn't be put in through Mr. Leir. For one thing, this witness wasn't here at this period of time, and it is delaying the witness completing his examination. I have no objection to it going in at some time, but it seems to me it ought to go in through the witness who can understand it and explain it.

The Court: Unless you can agree, you gentlemen, that it should go in now, I think perhaps it should await Mr. Leir. [1079]

Mr. Holland: I think that is correct, your Honor. I understood Mr. Alioto to say he didn't care.

Mr. Alioto: I wouldn't care for the first one, and wouldn't care. But this witness is trying to

(Testimony of Martin Wolf.)

make an engagement in Paris day after tomorrow, and that's the only reason I am making this objection.

Mr. Holland: All right, in that case I will omit all of the balance of these letters, with the understanding that I can examine Mr. Leir on them.

Mr. Alioto: Mr. Leir will be a witness, and he will be here. There won't be any question about that.

Mr. Holland: Except one letter which was written by Mr. Wolf, dated February 26, 1942.

Mr. Alioto: We have no objection to that document.

The Clerk: Defendants' V 1-C.

(The letter referred to was thereupon marked Defendant V Exhibit 1-C in evidence.)

Mr. Holland: Would you like to see the letter before I read it, Mr. Wolf?

The Witness: No.

Mr. Holland: Dated February 26, 1942, addressed to Apex Smelting Company, written by Martin Wolf (reading):

"We have received your telegram regarding the 5,000 pounds of V contained in Van-Ex, and have also received from Mr. Jenks a copy of the telegram he [1080] sent you. In all papers please mention the general license number and call the material vanadium oxide. Make out your invoice in triplicate on your usual form. Please make out an export declaration, also in triplicate. It is our

(Testimony of Martin Wolf.)

opinion that you should ship not only 2,000 pounds V contained, but the entire 5,000 pounds of V contained, since there is no risk in their adding pure vanadium pentoxide."

Q. (By Mr. Holland): Now, this letter refers to a shipment of Van-Ex, does it not, Mr. Wolf?

A. Apparently, from that letter. Thank you. Well, this is a shipment to the Atlas Steel in Canada, right?

Q. Correct. Is it a shipment of Van-Ex? That was the question. A. Obviously, yes.

Q. Thank you.

A. Can you hold that a minute?

Q. I am sorry.

Mr. Alioto: You are aware of the Canadian shipment?

Mr. Holland: I didn't bring that out. I am trying to find out what Van-Ex is.

Mr. Alioto: Did you offer the whole letter in evidence? [1081]

The Witness: No, let's not go into this other matter.

Mr. Alioto: I am suggesting, if your Honor please, that if it is gone into here, it would be very prejudicial for us not to go into it on our side to show what they did.

The Court: No, we are not going into it at all. That's settled.

Mr. Alioto: This letter is in evidence, if your Honor please.

(Testimony of Martin Wolf.)

The Court: I understand it is. But this other word was injected by the witness.

Mr. Alioto: Oh, no, it is right on the letter; it is right on the letter.

Mr. Holland: I am offering the letter simply for the purpose of the statements contained in it regarding Van-Ex.

Mr. Alioto: Well, the point I wanted to make is, we will take it up at a later time, of course,——

The Court: No, it is settled, so far as that's concerned.

Mr. Alioto: Very well, if your Honor please.

The Court: You may have an exception, but that's as far as you may go.

Mr. Alioto: I am not objecting here; I am simply pointing out I think it opens it up.

The Court: No. [1082]

Mr. Holland: "It is our opinion"—this is the only part of the letter I am offering:

"It is our opinion that you should ship not only 2,000 pounds of V contained, but the entire quantity of 5,000 pounds V contained, since there is no risk in their adding pure vanadium pentoxide. This is being done in a considerable number of steel mills and nothing can be wrong with it."

Q. (By Mr. Holland): Now, Mr. Wolf, I ask you if that was not a direction of yours to the Atlas to make a shipment of Van-Ex containing nothing but pure vanadium pentoxide?

A. Not necessarily, because basically whatever there is in, if there is any fluorspar in, or any

(Testimony of Martin Wolf.)

aluminum, it cannot possibly do any harm, because it goes into the slag.

Q. What did you mean when you said:

"It is our opinion that you should ship not only 2,000 pounds of V contained, but the entire quantity of 5,000 pounds V contained, since there is no risk in their adding pure vanadium pentoxide."

A. Well, I would guess that 99 percent is pure vanadium oxide.

Q. Well, you were referring to pure vanadium oxide when you used those words, were you not?

A. Substantially, yes, because that was substantially [1083] Van-Ex.

Q. And weren't you telling Apex that inasmuch as there wasn't time for preparing shipment of Van-Ex, they were simply to ship the pure oxide?

A. No, excuse me, Mr. Holland. The vanadium oxide is not 100 percent vanadium oxide, anyway; it is only 85 percent. So there are other ingredients in it, anyway. So——

Q. I understand that, but it wasn't a direction to Apex to ship the vanadium pentoxide as it was in the form of vanadium pentoxide?

A. It was not a direction, because we did not change—this was an implication, you might call it, but it was definitely no instruction, because they had previously discussed what should go into this Van-Ex.

Q. Well, I will go into that with Mr. Leir, because those are contained in his letters. But your

(Testimony of Martin Wolf.)

testimony is that this was not a direction on your part to ship your vanadium?

A. I don't take it as such direction, no.

Q. Although it says that, is that correct?

A. It seems to say that, yes.

Mr. Alioto: I think it speaks for itself, if your Honor please.

Mr. Holland: That's all.

Mr. Alioto: I would like for the record to understand the status of this last exhibit. Is it offered in its [1084] entirety?

Mr. Holland: I offered it in evidence for the portion I read, only, together with the statement of who wrote it and to whom it was written.

Mr. Alioto: Well, how about the statement as to where it was to be sent?

Mr. Holland: That I did not offer. I don't see what difference it makes where it was sent.

Mr. Alioto: Well, there was a lot of activity about stopping this activity. I think it makes that difference. That was—I will make a record on this, if your Honor please, because I think this is, again, totally unfair, to permit one side of the story to get in, carrying the implication that it does, in view of the——

The Court: You understand the ruling of the Court on that point.

Mr. Alioto: Yes, I do, if your Honor please. I simply want to make a short record, in 20 seconds.

In view of the admission into evidence of that exhibit, which is denominated Defendants' V 3-C,

(Testimony of Martin Wolf.)

we would respectfully again renew our offer to show what happened to the Canadian shipment, which is one of those directly involved here.

The Court: Objection sustained.

Mr. Alioto: I take it there had been an objection to the offer? [1085]

Mr. Holland: I am objecting to the offer of the balance of the letter.

Mr. Alioto: All right. Then the objection is sustained.

Mr. Holland: And shall I prepare simply the portions that are offered and submit it in lieu of this exhibit? I will do that. I will leave it with you.

The Court: Very well.

Mr. Alioto: We are objecting to that procedure, of course. We can't control it, but we object to taking a sentence out and not indicating where the shipment went.

The Court: It's immaterial where it went, absolutely.

Mr. Alioto: Not for the purpose Mr. Holland is using it, Judge. I know the ruling; I know the Court's ruling.

The Court: The Court has ruled on that point.

Redirect Examination

Q. (By Mr. Alioto): Now, Mr. Wolf, you were with Continental Ore Company in November of 1943, were you not? A. That's correct.

Q. And you were with them at the time that the request was made in November to both Electro

(Testimony of Martin Wolf.)

Metallurgical Sales Corporation and the Vanadium Corporation of America to supply you with regular monthly supplies of vanadium oxide? [1086]

A. That's correct.

Q. Now, what was the situation in November of 1943 with respect to contractual arrangements with any proposed manufacture of ferro-vanadium? Did you have any at that time?

A. In November of '43?

Q. Yes.

A. We had a contract with Imperial Paper.

Q. Well, I think your dates may be a little awry, but to establish those definite dates on matters on which both——

Mr. Archer: That's January, 1944, whatever the date is. We can develop that.

A. We had negotiations at that time which we were sure would lead to a contract with Imperial Paper, so we were trying to,——

Q. (By Mr. Alioto): All right. The contract was actually made in January of 1944, is that correct?

A. Yes. But we were trying to get a basis of raw materials for our negotiations for the forthcoming contract.

Mr. Alioto: At this time, if your Honor please, we offer into evidence that agreement between Imperial Paper and Color Company and the Continental Ore Company.

Mr. Archer: Could I see it?

Mr. Alioto: Yes, you certainly may.

(Testimony of Martin Wolf.)

It is dated January 4th of 1944. We offer it as plaintiffs' exhibit next in order.

The Clerk: Plaintiffs' No. 110.

(The letter-contract referred to was marked Plaintiffs' Exhibit No. 110 in evidence.)

[See Book of Exhibits.]

Mr. Alioto: We also offer into evidence the complete contract mentioned in the interrogation of Mr. Archer, letter-contract dated February 10, 1943, between Climax Molybdenum Company of Pennsylvania and the Continental Ore Company.

Mr. Archer: I don't have any objection to these going in. In fact, I think they should, for the record. But you are not going to ask Mr. Wolf about the negotiations?

Mr. Alioto: No, don't intend to. Just want to show what the situation was at various times when demands were made for oxide, and what it was at other times. I understand there is no objection to this contract in evidence, if your Honor please.

The Court: It may be admitted.

The Clerk: Plaintiffs' 111.

(The letter-contract referred to was marked Plaintiffs' Exhibit No. 111 in evidence.)

Mr. Alioto: I would like just to read the general terms for the members of the jury.

Plaintiffs' 110. Agreement between Imperial Paper and Color Corporation and the Continental Ore Company (reading):

"Whereas Imperial is or may be engaged in the manufacture of vanadium products as a principal

(Testimony of Martin Wolf.)

and desires to arrange for the cooperation of the Ore Company as the selling agent; and whereas Ore Company is willing to accept such undertaking.

"Now, therefore, in consideration of the premises and the mutual covenants contained herein, the parties agree as follows:

"The Ore Company agrees to cooperate with Imperial in connection with the manufacture of vanadium products including but not limited to vanadium oxide and ferro-vanadium; and to put at its disposal all technical and engineering information and data in the possession of the Ore Company, and to consult with Imperial with reference to the availability of raw material, the metallurgical or chemical processes to be employed, and as to the extent of the market for the finished product. The Ore Company further agrees that it will report to Imperial all changes in market conditions and the development of new sources of supply for raw materials, et cetera, both in the domestic and foreign markets."

And there is an appointment of Continental as the exclusive sales agents. I will read it; it's short (reading):

"Imperial hereby appoints the Ore Company as its [1089] exclusive sales agent for all products mentioned above and produced by it during the term of this contract, and authorizes the Ore Company to sell the entire output of these materials, subject to the then existing governmental regulations at the market price as fixed by Imperial. If

(Testimony of Martin Wolf.)

the Ore Company shall procure an order of a customer whose credit standing is not satisfactory to Imperial, Imperial shall give notice that it does not approve the credit and Imperial shall not be obligated to accept and ship any such order unless the Ore Company shall guarantee the payment for any material shipped upon such order. All sales will be made in the name of Imperial and will be invoiced by Imperial direct to the various customers to whom shipment is made. Copies of all orders and important correspondence passing between the Ore Company and the customers will be supplied promptly to Imperial."

There are other terms, but Paragraph 5 sets out the term of this contract (reading):

"It is agreed that the term of this contract shall commence on the 31st day of December, 1943, and continue for a period of five years thereafter."

Mr. Archer: What was the date? Oh, December?

Mr. Alioto: Yes, December 31, 1943, for a period of five years thereafter, would bring it up to December 31 of 1948, or January 1 of '49.

Then the contract with the Climax Molybdenum Company is dated February 10, 1943, and is in letter form, the form of a letter, from the vice-president of Climax Molybdenum Company of Pennsylvania to Mr. Henry J. Leir, president of the Continental Ore Company (reading):

"Subject: Ferro-vanadium.

"In reply to your letter of February 8th, we herewith submit to you in duplicate the following

(Testimony of Martin Wolf.)

contract offer with the understanding that your acceptance at the place designated therefor at the bottom hereof shall constitute a mutual binding agreement between us, our successors and assigns.

"1. You will ship to us at Langeloth, Pennsylvania, freight prepaid, 20,000 pounds of contained V in V_2O_5 concentrates, to which you now have title.

"2. You will ship to us adequate low copper aluminum to make it possible for us to produce ferro-vanadium from the vanadium oxide.

"3. We shall convert the vanadium oxide into ferro-vanadium, using our own labor, equipment, and supervision. We shall pack and deliver to you f.o.b. Langeloth, Pennsylvania, into suitable fiber containers, all of the ferro-vanadium produced as a result [1091] of this operation. You will pay us the following amount: (a) 20 cents for each pound of vanadium contained in the ferro-vanadium returned to you; (b) cost of fluxing materials necessary, such as lime and fluorspar; (c) cost of containers and labor for packing such ferro-vanadium; (d) it is understood that we shall pursue this matter with all diligence but do not guarantee any specific delivery date nor a minimum percentage recovery. The usual force majeur clause will apply to this agreement. We expect to complete this practice during the month of March of 1943. Kindly return to us a duplicate of this contract after you have executed the same."

Q. (By Mr. Alioto): Now then, during the

(Testimony of Martin Wolf.)

examination of Mr. Archer, reference was made to a contract dispute between you and Electro Metallurgical as to whether the price should be $1.10 or $1.15. Do you recall that?

A. That's right.

Q. And there was also reference made to the fact that you at that time offered to make a requirement contract, in 1943, with the Electro Metallurgical Company.

A. That's right.

Q. And that was the requirement contract to cover the [1092] rest of the year? A. Yes.

Q. Do you recall for which of these contracts you made that demand for the requirement contract? A. Which of these——?

Q. For which of either the Imperial or the Climax contract?

A. That was in June? No.

Q. June of '43?

A. June of '43? That would have been probably for Climax, I would say.

Q. Now then, you never did get the requirement contract? A. No.

Q. In 1943, did you? A. No.

Mr. Alioto: At this time, to show the condition of supply at that period of time, if your Honor please, we offer into evidence the letter to Mr. W. G. Haldane, the assistant general superintendent of United States Vanadium Corporation, dated November 10 of 1943.

(Testimony of Martin Wolf.)

Mr. Archer: This doesn't have anything to do with this witness.

Mr. Alioto: I think it does. If there was evidence offered, if your Honor please, as to a refusal to enter into a requirement contract in 1943, and there was a great [1093] deal of evidence about the contracts they did give us in '46 after these contracts were not in existence—the Imperial Paper and Climax contracts.

The Court: What is this that you are offering?

Mr. Alioto: This shows the supply situation——

The Court: No. What is it?

Mr. Alioto: It is a letter from Mr. Franklin Hatch of the War Production Board to this defendant, United States Vanadium Corporation, and sets out the situation as of that time. Would your Honor like to read the letter? I think it shows exactly where the information as to the supply situation comes from, too.

Mr. Archer: Well, I object to it on the same ground that you objected to the Van-Ex letter of Mr. Leir going in through this witness. This wasn't a letter to or from this witness.

Mr. Alioto: Neither were your letters. A number of letters were read that were not to or from this witness.

I think it ties this whole thing together so the jurors can see it all in one piece. [1094]

The Court: How would this witness be interested in this letter?

Mr. Alioto: This witness was interrogated about

(Testimony of Martin Wolf.)

that transaction where he asked for a requirements contract at or about the same time. This simply shows the supply situation at that time, and I think we would like to have it at this point for that reason.

The Court: Let it be admitted. Exception allowed. I think it is wholly immaterial, cumulative.

(Letter War Production Board, Washington, D.C., by E. Franklin Hatch, to Mr. W. G. Haldane, U. S. Vanadium Corporation, November 10, 1943, received in evidence and marked Plaintiffs' Exhibit 113.)

Mr. Alioto: This letter dated November 10, 1943——

Q. You will recall that the request of the Vanadium Corporation and Electro Met was also in November, 1943, as shown by Exhibit 40.

This is from the War Production Board to Mr. W. G. Haldane, Assistant General Superintendent of the United States Vanadium Corporation in New York.

"Dear Mr. Haldane:

"This is to acknowledge your letter of October 29th requesting that the restrictions placed upon vanadium immediately be removed in accordance with the expressions of opinion at the Vanadium Industry Advisory Committee [1095] Meeting held on October 25, 1943.

"I should also like to reiterate the understanding reached at the meeting that in view of present supply-demand situation in vanadium all requests

(Testimony of Martin Wolf.)

implied or otherwise, to maintain maximum production have been withdrawn insofar as vanadium, itself, is concerned.

"The Ferro-Alloys Branch of the Steel Division has started the procedure to remove vanadium from allocation as requested by the Vanadium Industry Advisory Committee. We are unable to advise you what disposition will be made of this matter, but hope that favorable action will be taken in the near future. With respect to the further recommendations by the Committee, these have been referred to the proper authorities for consideration."

Q. Now, with respect to the Imperial matter, Mr. Wolf, Mr. Archer read to you some correspondence between yourselves and the Imperial Paper Company, but not all of it. In connection with that part of the examination, we offer a letter from Mr. Brown, the General Manager of the Imperial Paper and Color Corporation, to the witness, dated December 5, 1944. This letter comes between the correspondence read by Mr. Archer. Mr. Archer had some in before and some in after.

Mr. Archer: Could I see the exhibit? [1096]

Mr. Alioto: Yes, Mr. Archer.

(Colloquy between counsel, outside the hearing of the reporter.)

Mr. Alioto: There are certain markings on the exhibit which, of course, will be taken off at the proper time.

Mr. Archer: I think the letter ought to go in.

(Testimony of Martin Wolf.)

Mr. Alioto: Fine. There is no objection to it then.

(Letter December 5, 1944, Imperial Paper and Color Corp. to Continental Ore Company, received in evidence and marked Plaintiffs' Exhibit 114.)

Mr. Alioto: This letter is dated December 5, 1944, between Mr. Brown, who is the General Manager of the Imperial Paper and Color Corporation, and the Continental Ore Company, 500 Fifth Avenue, New York.

"Gentlemen:

"Replying to your letter of December 4th, we are writing to advise you that we are not willing to write a letter such as you suggest at this time, because it might be construed as a representation that would involve an obligation that we do not care to assume. It is true that with the manpower situation as it is, we could not proceed with the Vanadium project, aside from all other considerations, but it is also true that if the manpower situation were easier, we would have to have more confirmation than we have [1097] been able so far to obtain that there are, and always will be, ample sources of vanadium-bearing material, so that if we invested capital in a plant, we would not sooner or later find ourselves with equipment idle, because of being unable to secure necessary raw materials.

"We now have some leads out to see what we can determine as to the probable operation of the Otavi mines after the cessation of hostilities in

(Testimony of Martin Wolf.)

Europe. Mr. Leir on his proposed trip to Mexico ought to be able to establish whether there is a new source of vanadium-bearing ore available in that country, and if so, in what quantities and in what concentrations.

"As we see this situation at the present time, one of the principal hazards in entering into the manufacture of V_2O_5 is the possibility that you may not be able to get sufficient raw material. Certainly the two major producers at this time have protected themselves against such a contingency by controlling primary sources of raw material. We would not be willing at the outset at least to make an investment of the size necessary to do this, but nevertheless we must be sure that there are sources from which we can always obtain vanadium-bearing materials at a [1098] price which will enable us to manufacture and compete with those who control their own supplies."

Mr. Alioto: And letter to the same effect, if your Honor please, which we don't have to read at this time but which we offer, to complete the correspondence put in by Mr. Archer, letters of April 9, 1945, April 13, 1945, and May 11, 1945. We ask that these be marked as one exhibit, if your Honor please.

The Court: Very well.

Mr. Alioto: We don't ask that they be read at this time, but they show the reasons, what the reasons were that were assigned for not going into it.

(Testimony of Martin Wolf.)

(Letters from Imperial Paper and Color Corporation to Continental Ore Company, dated April 9, 1945, April 13, 1945, and May 11, 1945, received in evidence and marked Plaintiffs' Exhibit 115.)

[See Book of Exhibits.]

Q. (By Mr. Alioto): Mr. Wolf, you were interrogated by Mr. Archer about the price dispute that you had with Electro Met and he read from your letter of May 21, 1943 to Electro Met. I want to call your attention to his paragraph:

"However, we believe that we can overcome this difficulty in price resulting from the difference between spot and contract sales. We are perfectly willing to sign a contract with you for our requirements until the end of the year. At present these requirements are estimated to amount to about 10,000 pounds of V contained in pentoxide per month."

Now, at any time after May 21, 1943, and the beginning of 1946—in other words, in that period from May 21, 1943 to the beginning of 1946—did you ever receive a requirements contract or an offer of a requirements contract from Electro Metallurgical Company? A. We did not.

Q. I think we can finish in just a moment, as far as I am concerned, Mr. Wolf. Mr. Archer inquired about whether or not you purchased certain supplies or tried to purchase certain supplies of vanadium products from the United States Government. I show you a copy of a document dated

(Testimony of Martin Wolf.)

February 19, 1943. Would you be good enough first to state whether or not you prepared that document? A. Yes, I did.

Q. You want to read it, please?

A. (Witness examining.)

Q. Did you make an inquiry of the United States Government in 1943 with respect to any plans the government had for stockpiling of vanadium products? A. Yes, we did.

Q. What did you find out about whether or not the government had made provisions for stockpiling certain products?

A. That's right. They made provisions for stockpiling [1100] ferro-vanadium at one time.

Q. And do you recall the quantity that was to be included in the stockpile?

A. 400,000 pounds, I believe.

(Discussion between counsel.)

Mr. Alioto: Counsel informs me he has no objection to the memorandum of this conversation with the government being placed into evidence, so we will offer it at this time, if your Honor please, rather than taking up a lot more time in establishing it. I think it sets it out concisely.

(Memorandum, Wolf, February 19, 1943, received in evidence and marked Plaintiffs' Exhibit 116.)

Mr. Alioto: Now, finally, your Honor, just to preserve our record again and not for any other purpose, there has been extensive interrogation here about costs, what vanadium oxide costs, ferro-

(Testimony of Martin Wolf.)

vanadium costs, and the relationship of vanadium oxide to ferro-vanadium, or, at least, Van-Ex to ferro-vanadium.

These defendants made a very exhaustive study of that whole matter, if your Honor please, and made some rather important conclusions with respect to that, and they made the studies in what has been offered previously as Plaintiffs' Exhibit 47.

Plaintiffs' 47 called "Special Report on Vanadium" made by the Union Carbide Research Organization, has a rather [1101] elaborate study on this matter of costs and also the relationship of vanadium oxide to ferro-vanadium in relation to costs and also the advisability of using vanadium oxide rather than ferro-vanadium, and the reasons for not using it directly in a steel mixture. We submit that because of the somewhat extensive cross-examination of Mr. Archer, and less extensive on the part of Mr. Holland, on Van-Ex, what it was, and what efficacy vanadium oxide had in connection with steel mixture, that in that connection we offer into evidence, as our Plaintiff's Exhibit next in order, what has been previously marked 47 for identification, "Special Report on Vanadium," which sets out these various factors.

Mr. Archer: I must renew my objection. This document is dated in 1935, your Honor. You recall I didn't contend with Mr. Wolf that his Van-Ex wasn't effective. I even said we made some of it.

The Court: Objection sustained.

(Testimony of Martin Wolf.)

Q. (By Mr. Alioto): Just one last question. Mr. Wolf, as of February 20, 1942, were you personally aware of any negotiations that were going on between representatives of the Vanadium Corporation of America and the representatives of the Apex Smelting Company?

A. No, I was not.

Mr. Alioto: We have no further questions.

Recross-Examination

Q. (By Mr. Archer): I have two, at least, on these agreements. You recall, Mr. Wolf, in that Imperial Paper agreement I asked you during your examination whether you recalled if it said anything about the supply of flue dust. I will just read the paragraph 6, page 3:

"Imperial covenants and agrees that all conditions being equal that Imperial will give to the ore company (that is Continental Ore) the first opportunity of supplying Imperial's total requirements for vanadium-bearing raw material, including flue dust, vanadium ores, or concentrates."

Now, in regard to this Climax contract dated February 10, 1943, you have already testified that 10,000 pounds — it obligates you — withdraw that question.

The Climax contract dated February 10, 1943, obligates you to furnish 20,000 pounds of contained V in a V_2O_5 concentrate, to Climax; you recall that, don't you? A. Yes.

(Testimony of Martin Wolf.)

Q. 10,000 pounds of that came from Electro Met? A. Yes.

Q. And you also got from other sources the remaining 10,000 pounds, didn't you?

A. Yes.

Q. So that you were able to comply with the terms of that [1103] contract?

A. That is right.

Q. Now, in regard to the period in November, 1943, were you aware at that time of this letter that was just read, from Mr. Jenks, I believe it was, to Mr. Haldane? A. No.

Q. Were you aware at that time that about three months prior thereto the United States Vanadium Corporation had undertaken for the account of the United States Army the production of over two million pounds of vanadium oxide together with an unspecified amount of uranium oxide at its plants in the Colorado Plateau? A. No.

Recross-Examination

Q. (By Mr. Holland): I have got one question. Mr. Wolf, as long as Mr. Alioto has brought up this refusal, qualified refusal of Vanadium Corporation to sell oxide in November of 1943, and reading you Plaintiff's Exhibit 41, which is Mr. Laub's answer to the inquiry, he says:

"In response to your inquiry of November 16th requesting quotation on ten to fifteen thousand pounds monthly of V_2O_5 contained in vanadic acid, we regret very much that due to our present com-

(Testimony of Martin Wolf.)

mitment we are not in a position to take on the additional tonnage at the present time."

Have you any knowledge as to what the "then commitments" of the Vanadium Corporation were or what the supply situation was at that time of that particular company? A. No.

Q. You have no knowledge on that subject, is that correct? A. No.

Q. The letter further says:

"Perhaps if you were still interested at a later date and our situation changes we will be glad to look at the matter further at that time."

I want to ask you if you ever thereafter, in response to this invitation from the Vanadium Corporation, inquired at a later time whether or not you could secure this contract.

A. I don't recall that we did.

Mr. Holland: That is all.

Further Redirect Examination

Q. (By Mr. Alioto): Mr. Wolf, in the light of Mr. Archer's examination on the Climax contract and the purported help that they gave you by selling you 10,000 pounds of it, did you ever have a conversation with any employee of Electro Metallurgical Company relating to the Climax contract or your Climax negotiations?

A. Yes, very definitely so.

Q. And what was the name of that employee of the Electro Metallurgical Company with whom you had this conversation?

(Testimony of Martin Wolf.)

A. That was Mr. Arrouet in June of 1943.

Mr. Alioto: Now, I know your Honor has previously excluded this conversation, but Mr. Archer has indicated that they gave him a lot of help with Climax.

Q. Who was present at that conversation, Mr. Wolf? A. Mr. Arrouet and myself.

Q. Would you be good enough to state what was said?

Mr. Archer: I object, your Honor.

The Court: Objection sustained. I have ruled on that several times.

Mr. Alioto: We have no further questions.

May the witness be excused, if your Honor please?

The Court: Yes. Any reason why this witness cannot be excused?

Mr. Archer: No, your Honor.

Mr. Holland: No, your Honor.

The Court: Very well. I hope you settle things over in Paris.

The Witness: Thank you, your Honor.

(Witness excused.)

The Court: Recess the court until ten o'clock tomorrow morning.

(Thereupon an adjournment was taken until 10:00 o'clock a.m., Thursday, June 12th, 1958.)

Thursday, June 12, 1958, 10:00 o'clock a.m.

Mr. Alioto: If your Honor please, the record should show at this point that the plaintiff has been previously sworn. The plaintiff calls Mr. Henry J. Leir.

HENRY J. LEIR

one of the plaintiffs, called as a witness in his own behalf, having been previously duly sworn, resumed the stand and testified further as follows:

Direct Examination

Q. (By Mr. Alioto): Mr. Leir, you have been previously sworn in this action.

A. Yes, sir.

Q. Would you be good enough to tell us, Mr. Leir, where you presently reside?

A. I reside at 150 Central Park West in the City of New York.

Q. What is your present business or occupation?

A. I am president of Continental Ore Corporation and partner in Continental Ore Company.

Q. Would you be good enough to tell us where the main office of the Continental Ore Corporation is located?

A. At 500 Fifth Avenue in the City of New York.

Q. And what space do you occupy there? [1108]

A. We occupy two floors.

Q. What is your annual rental there?

A. Over $60,000.

Q. Do you have offices other than in New York City?

A. We have offices in 18 other places.

Q. Would you be good enough to mention the principal places?

Q. (By the Court): In how many other places?

A. Eighteen.

(Testimony of Henry J. Leir.)

Q. Eighty? A. Eighteen.

Mr. Alioto: Eighteen, if your Honor please.

Q. (By Mr. Alioto): Do you have a little trouble with the English language, Mr. Leir?

A. Yes.

Q. Your mother language was German?

A. I was born in Germany.

Q. You also speak French?

A. I also speak French.

Q. Will you do the best you can in English? As a matter of fact I came off Fisherman's Wharf, and we have a little trouble with it down there, too. You stay with it, Mr. Leir.

Now, Mr. Leir, with respect to these other offices, where are they located?

A. To start with the United States, we have an office in Los Angeles; we have offices in England, Luxembourg, France, Germany, Switzerland, Italy, Austria, Spain, Mexico, Rio de Janeiro, Korea, Japan, South Africa, Southern Rhodesia, New Delhi, India.

Q. Approximately how many employees do you have in all of your offices, including your New York office,—full-time employees?

A. All told, about 190 people.

Q. A hundred and ninety? A. Yes.

Q. Of that 190, how many are located in New York? A. About 75.

Q. Mr. Leir, would you be good enough to tell us the principal business of the organization which you have?

(Testimony of Henry J. Leir.)

A. We are engaged in the business of minerals, ores and alloys.

Q. During an earlier period of time reference has been made to a Continental Ore Corporation and the two other plaintiffs in this action, who are Mrs. Leir and Lona Schloss. Would you be good enough to tell us who composed the partners in the Continental Ore Company? Who were they?

A. Mrs. Leir, my wife, Mrs. Schloss, my mother-in-law, and myself. [1110]

Q. Your mother-in-law is still living, is she?

A. Yes.

Q. How old is she?

A. Eighty-two years old.

Q. And your wife is still living?

A. Yes.

Q. Now then, prior to the period of the partnership there was a corporation from 1939 to 1942, is that correct, Mr. Leir? A. Yes.

Q. And who were the stockholders in that corporation? A. The family.

Q. In other words, yourself, your wife and your mother-in-law, is that correct? A. Yes.

Q. And that corporation was dissolved in April of 1942?

A. I think it was dissolved in—if I remember correctly, it was dissolved in October of 1942.

Q. And what happened to the assets of that corporation?

A. They were entirely transferred to the company.

(Testimony of Henry J. Leir.)

Q. The partnership? A. Yes.

Q. And at the time of the transfer, the partners in the partnership were yourself, your wife and your mother-in-law?

A. Myself, my wife and my mother-in-law.

Q. And has the composition of the partnership continued the same right down to date?

A. It is the same, with the exception that a few years ago we took in a cousin of my wife as an additional partner.

Q. What is his name?

A. Louis J. Lipton.

Q. Mr. Leir, would you be good enough to tell us how long you personally had been engaged in the business of minerals, ores and alloys?

A. I started at an early age; I started in 1916, at the age of 16.

Q. Where were you born, Mr. Leir?

A. I was born in Germany.

Q. How many children in the family?

A. We were six. I was the eldest.

Q. Did your father die when you were young?

A. My father died when I was 11 years old.

Q. Did you go to work at 16, then?

A. I went to work at 16.

Q. Where?

A. In my home town at Beuthen, in Silesia, which is similar to, I would say, Pittsburgh, Pennsylvania.

Q. Is it a steel area—iron?

A. It is a steel area, yes.

(Testimony of Henry J. Leir.)

Q. What was the name of the company for which you went [1112] to work?

A. The name of the company for which I worked at the time was Weissenberg.

Q. What was the nature of the business carried on by that company?

A. We were engaged in the business of minerals, ores, refractories and coal.

Q. What period of time did you work for that company?

A. I stayed with them until the end of 1918.

Q. You started working in 1916 when you were 16 years of age? A. Yes.

Q. Could you tell us specifically what it was that you did with that company — your personal duties?

A. During those three years while I was with them I was, what was known in German language, an apprentice. I learned the business from each and every angle.

Q. Was that a merchant company?

A. It was a merchant company and a manufacturing concern, because we manufactured magnesite bricks for the steel furnaces.

Q. Now then, after your apprenticeship with that company did you join another firm?

A. In the beginning of 1919 I joined another firm known as Wolf-Netter. [1113]

Q. Where was that firm located?

A. This firm was located in Mannheim, Germany.

(Testimony of Henry J. Leir.)

Q. What was the nature of the business of Wolf-Netter?

A. It was a business similar to the business I had been in, but on a much larger scale. As a matter of fact, Wolf-Netter was considered one of the largest firms in Germany. It was a family concern, and we were engaged in the business of minerals, ores, alloys—and they were also in the manufacturing business.

Q. Could you name some of the minerals, ores and alloys in which that company was engaged?

A. It was, again, magnesite, which had become a specialty of mine, fluorspar, ferro-silicate, pig iron, aluminum. As a matter of fact, Wolf-Netter made, at a certain time, together with the State-owned aluminum works, a big portion of the production in aluminum foil, and I still remember that the first aluminum foil used in this country by Hershey Chocolate came from Germany—came from us.

Q. Who were the principal customers of Wolf-Netter — what classification of persons were the principal customers of the Wolf-Netter Company while you were there?

A. Steel mills, foundries, metal works and chemical factories.

Q. What, specifically, did you do with the Wolf-Netter Company while you were there? [1114]

A. I did purchasing and selling.

Q. Purchasing and selling of what?

A. Purchasing and selling.

(Testimony of Henry J. Leir.)

Q. Purchasing and selling of what, Mr. Leir?

A. Purchasing and selling, in the beginning, of magnesite and fluorspar; later, pig iron and ferro-alloys.

Q. For how long a period of time did you stay with the Wolf-Netter organization?

A. I stayed with them 13 years, until '31.

Q. At that time you were 31 years of age, too?

A. Yes.

Q. What was the next job you had in any industry relating to minerals, ores and alloys?

A. In '31 I became general manager of a firm known as Magnesite G.M.B.H. — which means "Limited"—in Bonn, Germany, and this firm was in the production end of magnesite refractories.

Q. (By the Court): What is that?

A. It was in the production of magnesite refractories, your Honor.

Q. (By Mr. Alioto): The firm was in the production of magnesite refractories? A. Yes.

Q. Now, was this firm an affiliate of the Wolf-Netter organization?

The Court: Pardon me just a moment.

Q. (By the Court): Now, explain that term so the jury will understand it, as well as the Court.

A. Yes.

Q. Magnesite.

A. Magnesite is a mineral which, after a certain treatment, is being pressed under tremendous pressure into bricks, and these bricks, in turn, go into the steel furnaces as lining of the steel fur-

(Testimony of Henry J. Leir.)

naces. The same production exists right here outside of San Francisco by Henry J. Kaiser. He makes exactly the type of product known as magnesite bricks.

Q. (By Mr. Alioto): Was the firm of which you were general manger from 1931 to 1933 an associate or an affiliate of the Wolf-Netter organization?

A. To the extent of 50 percent. It was owned 50 percent by the firm of Wolf-Netter, in which I had been for 13 years, and 50 percent by a large refractory group in Germany.

Q. Was this a production company as well as a sales company? A. Which one?

Q. The firm of which you were general manager, Magnesite [1116] G.M.B.H.

A. It was both; it was manufacturing and selling.

Q. In your duties as general manager did you have anything to do with the production end of the business? A. Oh, yes.

Q. Were you general manger for all phases of the business?

A. I was general manager.

Q. How long a period of time did you continue as general manager of that business?

A. Up to May, 1933.

Q. Who were the principal customers, the principal class of customers, served by that business?

A. The principal customers were, again, the steel mills.

(Testimony of Henry J. Leir.)

Q. What happened in 1933, Mr. Leir?

In 1933 the Mrs. and I decided to leave Germany and to settle in Luxembourg.

Q. Did you establish your own business there at that time?

A. I established my own business there, on August 10 or 11, 1933. The business is still in existence.

Q. And what was the name of that business which you established in Luxembourg in 1933?

A. The exact name—it is a French name, because the official language in Luxembourg is French—the exact name is S. A. des Minerais—which means "Ore Corporation." [1117]

Q. Ore Corporation?

A. Ore Corporation.

Q. Would you be good enough to spell that name for the shorthand reporter, please?

A. S. A. d-e-s M-i-n-e-r-a-i-s.

Q. How old were you when you owned your own company? A. Thirty-three.

Q. Was this a corporation?

A. It was a corporation.

Q. And who were the owners of that corporation when you organized it?

A. Again, the family.

Q. You include yourself and your wife and your mother-in-law?

A. My mother-in-law, yes, and at that time, my father-in-law.

(Testimony of Henry J. Leir.)

Q. What was the business of S. A. de Minerais? What business did it engage in?

A. The business was, again, in the line of ores, minerals, refractories, alloys.

Q. I am not sure that we all understand what "refractories" means. Would you tell us, generally?

A. By "refractory," I refer to this type of bricks I just had explained, namely, bricks not for building purposes, but for the steel furnaces. [1118]

Q. Tell us some of the products you dealt in in your corporation in Luxembourg.

A. Well, we dealt, for instance, in tungsten ore and tungsten, and ferro-tungsten,——

Q. (By the Court): Was it a manufacturing institution, or sales?

A. It started as a selling organization, your Honor, but at the same time we were instrumental in creating new industries.

Mr. Alioto: We will cover that phase in just a moment, Mr. Leir, as to your manufacturing joint ventures.

Q. (By Mr. Alioto): Did you deal in magnesite?

A. We dealt in magnesite, and we produced it in combination with a rather large outfit in Belgium known as Union Chimique Belge — U-n-i-o-n C-h-i-m-i-q-u-e B-e-l-g-e.

Q. What was the nature of the arrangement you had with the Belgian company on the manufacture of magnesite bricks?

A. I convinced them that Belgium and Luxem-

(Testimony of Henry J. Leir.)

bourg should have a production of magnesite bricks of its own, and they created the necessary installation. We bought the raw material; we gave them the necessary technical help to produce a good product, and we would then sell it.

Q. What was the arrangement on the share of profits or losses? [1119]

A. We had a rather high commission on the sale of the product. If I remember correctly, it was an unusually high commission—about six percent.

Q. And you sold that product throughout Europe?

A. We sold it not only in Belgium and Luxembourg, but throughout Europe.

Q. Did your company also deal in fluorspar?

A. We also dealt in fluorspar, yes.

Q. In tin?

A. We had a participation, a financial participation, in a little tin smelter in the Port of Ghent, Belgium, where we would, from low-grade Bolivian tin ores, make an unusually high electrolytic tin.

Q. While you were in Luxembourg did you deal with any American products from Western United States?

A. I remember we were importing from the United States a mineral known as bentonite, which came from Wyoming.

Q. Did you ship anything to the United States from Luxembourg?

A. I don't remember that we shipped anything at that time from Luxembourg.

(Testimony of Henry J. Leir.)

Q. How about fluorspar?

A. We were in negotiations with regard to fluorspar. I am not quite sure whether we shipped any fluorspar at that time from Luxembourg.

Q. Incidentally, tell me, first, whether or not in 1933 this company dealt specifically with ferro-vanadium.

A. In about 1935 or 1936 we started to go into the manufacture of ferro-vanadium, ferro-tungsten, and ferro-molybdenum, in connection with the French industrial outfit.

Q. What is the name of that French industrial outfit? A. Fredet-Kuhlmann.

Q. What was the arrangement between your company and the Fredet-Kuhlmann Company?

A. It was a joint venture on the basis of fifty-fifty.

Q. Well, just tell us something about how it worked. What did you do and what did they do?

A. We put up the necessary finances to buy the raw material. They put up the technical installation. And we would carry on the business as partners—as equal partners.

Q. You bought the raw materials and they bought the equipment? A. Yes.

Q. Now then, did you produce ferro-vanadium under that arrangement with the Fredet-Kuhlmann Company?

A. We did. We produced ferro-vanadium, we produced ferro-tungsten, and we produced ferro-titanium, for instance.

(Testimony of Henry J. Leir.)

Q. With respect to your ferro-vanadium, was it the same kind of ferro-vanadium that was being produced in the United States at that time? [1121]

A. No, it was a higher type of ferro-vanadium, I would call it.

Q. What was the difference in the type of ferro-vanadium produced by the French firm and the type of ferro-vanadium produced in the United States?

A. The French—I would call it "our" firm—had 70 to 80 percent vanadium content, whereas the usual type of material at that time in existence on the American market had only 35 to 50 percent.

Q. Which of the partners in that joint venture fixed that formula for the ferro-vanadium? Whose idea was it? [1122]

Q. Whose idea was it?

A. I think we arrived at this idea in joint discussion with them.

Q. Who were the principal customers for ferro-vanadium in connection with that joint venture?

A. Only the steel mills.

Q. And who sold that ferro-vanadium output of the Fredet-Kuhlmann des Minerais joint venture?

A. It was sold by our office in Luxemburg.

Q. What was the marketing territory in which you sold?

A. We sold it mostly in France.

Q. To the steel mills?

A. To the steel mills in France, yes.

Q. Did you also while you were operating the

(Testimony of Henry J. Leir.)

Luxemburg Company enter into any arrangement for magnasite, brick and fluorspar with any German companies?

A. Well, this was—I would call it independently of the operation of the Luxemburg firm. I had entered into an arrangement in the beginning of 1933 with two very large German industrial firms. We formed a joint company which was owned thirty-seven and a half percent by the Krupp steel interests——

Q. That was the largest steel company in Germany, was it?

A. One of the largest; thirty-seven and a half percent by one of the largest chemical outfits in Germany known as [1123] The Refinery in Frankfurt, and twenty-five percent by myself.

Q. Approximately when was this company formed?

A. This company was formed in about April 1933.

Q. 1933? A. Yes.

Q. What business did that company carry on?

A. The business of producing—let me correct—the business of selling the production of magnesite in Austria and the production of fluorspar in Germany.

Q. What participation did you have in the actual operation of that business?

A. As I just said, I had twenty-five percent interest in it.

(Testimony of Henry J. Leir.)

Q. Aside from your interest, what did you do there?

A. I gave my technical and commercial advice as to the running of the company.

Q. What part did you have in forming this company? Whose idea was it? Krupp's, the other party, or yourself?

A. Honestly I think it was my own idea.

Q. In other words, you started negotiations to form the company in any event? A. Yes.

Q. And the company was formed?

A. Yes.

The Court: Was this a manufacturing company or a [1124] selling company?

A. It was a selling company, your Honor.

Q. (By Mr. Alioto): This company sold the output of a mine in Austria, did you say?

A. Yes.

Q. Did you have anything to do with getting that mine in Austria for the company?

A. Yes, I had obtained it. The mine was in bankruptcy and I convinced the Krupp steel mill at that time to buy the mine, the mine and mill, and they did it, and were very happy about it.

Q. And then the company formed was to sell the output of that mine, among other things, is that correct?

A. Yes, after certain modifications of the technical installation in which I certainly was very helpful.

Q. During that period from 1933 to 1938, while

(Testimony of Henry J. Leir.)

you were in Luxemburg, do you think you have told us generally what duties you carried on in connection with your companies?

A. Well, I was the general manager and the main stockholder of the company.

Q. As general manager did you have anything to do with the purchase of raw materials?

A. Of course, yes.

Q. Where were you buying your raw materials at the time?

A. At the time we would buy, for instance, tungsten ore [1125] from South America, from Asia, from Portugal. We would buy tin ore from Bolivia, and we would buy magnesite from Austria.

Q. There came a time in 1939 when the German armies overran Luxemburg, is that correct?

A. In 1940.

Q. What happened to your company there, Mr. Leir?

A. The company was liquidated by the occupation force.

Q. Just taken over by the German army?

A. Taken over or liquidated, yes.

Q. Before we get to your first trip to America, tell us whether or not the Fredet-Kuhlmann is still producing ferro-vanadium?

A. The Fredet-Kuhlmann Company is still in existence, still producing ferro-vanadium and other alloys.

Q. When did you first come to America, Mr. Leir? A. In January, 1938.

(Testimony of Henry J. Leir.)

Q. What was the occasion of your coming? What were the circumstances of your coming to America?

A. I still remember the circumstances. We had a long-distance call from the City of New York from General Chemical Company, which is a division, as you might know, of Allied Chemical, Allied Chemical in the City of New York, and they suggested to me to come over to discuss with them the question of a regular supply of fluorspar, one of the essential raw materials for them. [1126]

Q. And you were invited to come over by them at that time?

A. I was invited. I made the trip, however, at my own expense.

Q. You came to America for that purpose originally? A. Yes, sir.

Q. When was that, Mr. Leir?

A. It was in January 1938.

Q. How long did you stay in America for that period of time?

A. I stayed at that time about two or three weeks.

Q. I take it you came at that time on a business visa? A. It was a business visa, yes.

Q. Did you then make a determination to return to America on the basis of a visa for permanent residence?

A. Well, I had seen Philadelphia, Pittsburgh, Washington, at that time, not only New York, and came to the conclusion that if the Missus would

(Testimony of Henry J. Leir.)

agree, that we shall transfer our residence to America, which we did.

Q. Pursuant to that you came to America under a visa for permanent residence in what month, Mr. Leir? A. In April, 1938.

Q. At the time you came to America you were, of course, a German national? A. Yes. [1127]

Q. By virtue of your birth in Germany?

A. Yes.

Q. At that time your full German name was Heinrich Hans Leipziger, and Heinrich Hans is Henry John, is it not? A. Yes.

Q. And that was Anglicized shortly after you came to America to Henry John Leir?

A. Yes.

Q. When did you first file your declaration to become an American citizen?

A. A few weeks after my arrival in the United States.

Q. When was your American citizenship granted to you, Mr. Leir?

A. On August 10th, 1944, still during the war.

Q. The war was still on when you received your American citizenship? A. Yes.

Q. Getting down to the business of vanadium, when you arrived in America, had you formulated a plan as to what you were going to do here?

A. Yes, I had.

Q. Pursuant to that plan did you have any discussions with the Apex Smelting Company?

A. I had met on the boat coming to America

(Testimony of Henry J. Leir.)

in April, 1938, a gentleman, a very well known metallurgist, with whom I had [1128] discussed the idea of going into the ferro-alloy business in general, including ferro-vanadium.

Q. Yes?

A. And when I told him our process, or when I talked to him about our process that we used in France, his reaction was that I should go and see the Apex Smelting Company in Chicago, because Apex Smelting Company in Chicago were makers of aluminum, and aluminum was a part of our process.

Q. Did you have negotiations with the Apex Smelting Company?

A. Shortly after my arrival.

Q. Did you personally participate in those negotiations?

A. Oh, yes, I carried them on personally.

Q. With whom did you negotiate?

A. With Mr. Singer, President of Apex Smelting, with Mr. Starmann, Vice-President of Apex Smelting Company, and with Mr. Lippa, Secretary of Apex Smelting.

Q. As a result of that negotiation, Mr. Leir, did you then enter into a contract with the Apex Smelting Company? A. Yes, we did.

Q. Was that contract thereafter modified from time to time?

A. There were certain amendments.

Q. Originally who were the parties to the contract?

(Testimony of Henry J. Leir.)

A. If I remember correctly, the first partner in this [1129] contract was a French outfit. Maybe the Luxembourg outfit; I wouldn't remember.

Q. This contract has the following named associate: Societe D'Electro-Chimie de Brignoud?

A. Yes.

Q. Identify that organization for us.

A. They were our French partners with whom at the time we carried on the business of making ferro-vanadium and other alloys in France on the basis of fifty-fifty.

Q. Is this the same company as Fredet-Kuhlmann? A. The same company.

Q. In other words, the formal nature of the organization was as already stated?

A. It was exactly the same.

Q. With whom you had the ferro-vanadium joint venture, was it?

A. Exactly the same company.

Mr. Alioto: I think this is best shown by the documents and letters, if your Honor please, which we will offer into evidence at this time. We will offer this in evidence, if your Honor please, as Plaintiffs' Exhibit next in order.

Mr. Holland: No objection.

(The document referred to was thereupon received in evidence and marked Plaintiffs' Exhibit No. 117.) [1130]

[See Book of Exhibits.]

Mr. Alioto: The original contract, ladies and gentlemen, is dated July 1, 1938, and it is between

(Testimony of Henry J. Leir.)

the Apex Smelting Company, an Illinois corporation, and — I will do my best on this — Societe D'Electro-Chimie de Brignoud.

A. Yes.

Q. (By Mr. Alioto): A corporation of France hereinafter referred to as the Society.

The Court: July, you say?

Mr. Alioto: July 1st, 1938, if your Honor please.

(Reading)

"Whereas, the Company is in the business of producing aluminum and zinc base and other non-ferrous alloys; and

"Whereas, the Society represents that it owns and controls certain secret processes for the production of a complete line of ferro-alloys made by alumino-thermit process, including, without limiting the foregoing, ferro titanium, ferro tungsten, ferro vanadium, ferro chromium, chromium metal, manganese metal and welding powders, for the production of alumino-thermit stainless steel, and other alloying elements used in the manufacture of steel and iron (hereinafter referred to as the 'Secret Processes'), but not including aluminum, zinc and copper magnesium and other products manufactured by the Company in the past; and

"Whereas, the Company desires to acquire the Secret Processes and to create and operate a separate department to employ the same;

"Now, Therefore, in consideration of the premises and the mutual agreements herein contained, it is covenanted and agreed as follows:

(Testimony of Henry J. Leir.)

"1. The Society hereby sells, transfers and assigns the Secret Processes, all uses thereof, all inventions and discoveries included therein, all patents that may issue thereon, and all of its right, title and interest therein, throughout the United States and the territories thereof and the Dominion of Canada, to the Company and agrees to disclose the same to such person or persons as the Company may in writing designate. The Society further agrees to disclose to such person or persons as the Company may in writing designate and to transfer and assign to the Company all of its right, title and interest, throughout the United States and the territories thereof and the Dominion of Canada, in and to any and all improvements on the Secret Processes, or any one or more of them, and in and to any and all inventions, discoveries, processes and formulae useful or adaptable to the production of thermit process [1132] metals, or alumino-thermit stainless steel, or other steel alloying elements (other than the products heretofore manufactured by the Company) which, during the period of this agreement, the Society may make, discover or conceive. The Society further agrees, without charge to the Company but at the Company's expense, to execute, acknowledge and deliver all such further instruments, including applications for United States and Canadian patents and assignments of patents, and such assignments or authorizations of applications for patents, as may be necessary to obtain patents for such in-

(Testimony of Henry J. Leir.)

ventions in the United States and Canada, and any and all reissues and extensions thereof, and to transfer title thereto and to vest the entire right, title and interest in any and all inventions, improvements, applications and patents, as aforesaid, in the Company. The Society further agrees to assist to the fullest extent of its ability, but not at its expense, the prosecution or defense of all interferences or court proceedings involving said inventions, as may reasonably be requested or demanded by the Company.

"2. If, within 120 days after a full disclosure of the Secret Processes to the Company in manner aforesaid, the Company shall be advised by [1133] competent patent counsel (who may be counsel for the Company) that the Secret Processes, or any one or more of them, infringe or interfere with any claim included in outstanding Letters Patent of the United States, then the Company shall have the right, at its election, to terminate and cancel this agreement by notice in writing given to the Society within thirty days after the receipt of such advice. In the event of any cancellation pursuant hereto, the Company shall forthwith re-assign and re-transfer to the Society all of its right, title and interest in and to the Secret Processes, and thereupon this agreement shall be of no further force or effect.

"3. If this agreement be not cancelled as hereinbefore provided, then the Company agrees to establish and equip, in such manner as it deems

(Testimony of Henry J. Leir.)

proper, a separate department of its business to be known as the Thermit Department. The Thermit Department shall be devoted exclusively to the production and sale of a complete line of thermit process metals, alumino-thermit stainless steel and other non-ferrous metals for steel and iron alloying (but not including products heretofore manufactured by the Company) and to trading in minerals and ores necessary to the aforesaid production. The Company further agrees to operate the [1134] Thermit Department throughout the term of this agreement; provided, however, that if any person, firm or corporation shall claim that the Secret Processes, or any one or more of them, infringe or interfere with any United States or Canadian patent or patent application or any prior invention, then the Company may, in whole or in part, suspend the operation of the Thermit Department until the validity or invalidity of such claims shall be determined or established by a court of competent jurisdiction.

"4. The Company hereby agrees to pay to the Society a royalty equal to fifty per centum (50%) of the net receipts, if any, as hereinafter defined, received by the Company from its operation of the Thermit Department during the term of this agreement. All royalties hereunder shall be paid in annual installments within 45 days after the close of each calendar year. All payments to the Society hereunder shall be made in lawful money of the United States, shall be remitted to it by Chi-

(Testimony of Henry J. Leir.)

cago or New York draft, and shall be subject to all applicable laws of the United States or the State of Illinois relating to the withholding of taxes at the source.

"5. The term 'net receipts' as used herein shall, for all purposes of this agreement but (for no other [1135] purpose), mean the amount which shall be ascertained by deducting from the gross revenues and income of the Thermit Department during each calendar year, the following:

"(a) All direct charges against the Thermit Department for such calendar year, including, without limiting the foregoing, (1) the cost of raw materials and fluxes, (2) the cost of direct labor, (3) the cost of fuel and power, (4) the cost of compensation insurance, (5) the cost of packing material, (6), the cost of publicity advertising products of the Thermit Department exclusively, (7) the cost of freight and drayage, (8) the salary or compensation of the Production Consultant of the Thermit Department, (9) rental on the space occupied by the Thermit Department at the rate of thirty cents (30c) per square foot, (10) depreciation on equipment at the rate of seven and sixty-nine hundredths per centum (7.69%), per year, (11) losses in the collection of accounts receivable, (12) inventory losses, and (13) all direct taxes such as sales, manufacturer's license and social security taxes. All aluminum metal required by the Thermit Department, shall be furnished by the Company and charged to the Thermit Department at its cost

(Testimony of Henry J. Leir.)

to the Company plus one-half cent (1/2c) per pound. [1136]

"(b) An amount equal to that proportion of the indirect expenses of the Company for such calendar year which the sales of the Thermit Department bear to the total expenses shall include sales expense, administration expense, such manufacturing expenses as are not included in the direct charges, income and property taxes and such other taxes as are not included in the direct charges.

"(c) All net losses of the Thermit Department for prior calendar years which have not been charged against the net receipts of the Thermit Department in subsequent years."

And it says that a certified public accountant shall determine the accounts at the end of the year.

"6. The Company shall keep true and accurate records and accounts * * *"

"7. The Society hereby agrees that it will not, directly or indirectly, engage in the business of producing or selling thermit process metals or alumino-thermit stainless steel or other non-ferrous metals employed in alloying steel or iron within the United States or any territory thereof or within the Dominion of Canada, during the term of this agreement, nor will it permit any corporation or association affiliated with it so to do. The Company agrees that [1137] it will not, directly or indirectly, engage in the business of producing or selling thermit process metals or alumino-thermit stainless steel or other non-ferrous metals employed in

(Testimony of Henry J. Leir.)

alloying steel or iron (but not including products heretofore manufactured by the Company) within the United States or any territory thereof or within the Dominion of Canada, during the term of this agreement, except by means of the Thermit Department, nor will it permit any corporation or association affiliated with it so to do. [1138]

"8. The Society agrees that it will, at all times during the installation and completion of all equipment required in the Thermit Department and until satisfactory production has been obtained in the Thermit Department furnish to the Company the services of a skilled technician, without cost to the Company other than the payment of his necessary travelling expenses.

"9. The Society agrees that it will not do or omit, or suffer to be done or omitted, any act or thing whereby the Secret Processes, or any one or more of them, may become known to any unauthorized person."

Then it provides for notice. And then, Paragraph 11 provides as follows:

"11. The term of this agreement shall commence at the date hereof and continue until (a) the expiration of fourteen (14) years from the date hereof, (b) the operation of the Thermit Department for two (2) successive calendar years without an average annual net profit of at least Seventy-five Hundred Dollars ($7500), or (c) the issuance by a court of competent jurisdiction of an injunction restraining the Company from using any one or

(Testimony of Henry J. Leir.)

more of the Secret Processes by reason of patent infringement, whichever shall happen the earliest.

"12. This agreement shall be binding upon and inure to the benefit of the respective heirs, legal representatives, successors and assigns of the parties hereto, and shall be construed in accordance with the laws of the State of Illinois."

It is signed by the parties hereto and is signed by the Apex Smelting Company, by W. A. Singer, its President, the Secretary, Louis Lippa, and by the Societe d'Electro-Chimie de Brignoud by M. Spitzer, whose title is "L'Administrateur Directeur General."

Q. What does that mean? A. President.

Q. It means President? A. President.

The Court: Now, about "Society" you refer to your company, and when you use the word "Company," that is the Apex?

A. No, your Honor.

Mr. Alioto: In the contract, "Company" refers to Apex, "Society" refers to the French company, the Societe d'Electro-Chimie de Brignoud, which is the Fredet-Kuhlmann organization.

Q. Now, then, on your side, your Luxemburg company and the French company split fifty-fifty, that is correct, isn't it? A. Yes. [1140]

Q. So that the ultimate interests were 25 per cent Luxemburg, 25 per cent Fredet-Kuhlmann, 50 per cent Apex? A. Yes.

Q. I think that is made clear by the Apex agreement, which I needn't read, except that thereafter

(Testimony of Henry J. Leir.)

there was an agreement which appointed the Continental Ore Company as the exclusive sales agent for the products of the Thermit Department of Apex throughout the United States, with certain exceptions. It states that Indiana, Illinois, Wisconsin and California were reserved to Apex. That is correct, is it not? A. Yes.

Mr. Archer: What was the date of that?

Mr. Alioto: This is dated May of 1941.

Q. And your company did in fact—that is, the Continental Ore Company, did in fact act as the exclusive sales agents for the Apex production until the termination of the contract?

The Court: The date of that contract was?

Mr. Alioto: The date of this contract is May, 1941, under which the Continental Ore Company is appointed as the exclusive sales agent at a commission of two and a half per cent.

The Court: That contract is between whom?

Mr. Alioto: That contract is between the Apex Smelting Company and the Continental Ore Corporation.

Q. I had just asked you, your company distributed the products of Apex Smelting Company, the ferro-vanadium, during the term of the contract?

A. Yes. The only point I wanted to correct was that it was the Continental Ore Corporation at that time, not the Continental Ore Company.

Q. I think I have indicated that in this question.

A. Yes.

Q. Now, then, also in July of 1938 there was a

(Testimony of Henry J. Leir.)

contract by which the French Company set over one-half of its interest in the contract to the Luxemburg corporation, Mr. Leir, as already testified, and by which the Luxemburg corporation transferred its interest to Mr. Leir as the trustee to the Continental Ore Corporation.

Mr. Holland: What is the date of that?

Mr. Alioto: This instrument is dated December 17, 1940, and refers to the contract of July 1st, 1939, which I have previously read.

Now then——

The Court: There is one question. When you speak of the Thermo Department (sic), what do you mean by the Thermo Department (sic)?

A. The Alloys Department.

The Court: Alloy?

A. The Alloy Department which was created, your Honor, to make ferro-vanadium, ferro-tungsten, and other ferro alloys for the steel mills.

The Court: Well, did it include making [1142] ferro-vanadium?

A. Yes, of course, your Honor.

The Court: Well, now, was that manufactured by the company before your contract was entered?

A. Never.

The Court: They never made any ferro-vanadium?

A. The Apex Smelting Company never made any ferro-vanadium prior to our coming to this country.

The Court: All right.

(Testimony of Henry J. Leir.)

Q. (By Mr. Alioto): In other words, this joint venture created this ferro-vanadium production in the United States?

A. It created a new—call it department—I call it the new business for them.

Q. Now, at that time——

The Court: That is what it included when you referred to the Thermal Department (sic)?

A. Yes.

Mr. Alioto: I think that is Thermit Department.

The Court: What?

Mr. Alioto: Thermit Department,—T-h-e-r-m-i-t.

The Court: Is that English or French?

Mr. Alioto: Well, I was going to say it is English. All right.

Q. I am going to ask you, Mr. Leir, you speak French, if [1143] you will be good enough to tell me what Thermit is, what the technical meaning of Thermit is.

A. If you ask me, the word Thermit comes from the old Greek and means heat, and nothing else but heat. And you have the same term—if you speak today, for instance, of the thermal meter, it is the same word, a meter to measure the heat.

Q. (By Mr. Alioto): Or a thermal pot to keep coffee hot at ball games, but doesn't?

A. That's right.

The Court: They have heat in France, too, don't they?

A. Yes. Too much heat.

Q. (By Mr. Alioto): Now, then, earlier, at the

(Testimony of Henry J. Leir.)

time of the original arrangement, you personally, for putting this together, were to receive a bonus of ten per cent?

A. Yes. I gave it up, later.

Q. And then there came a time, in September 4 of 1940, before any ferro-vanadium was actually sold, when you gave that up?

A. I gave it up, yes.

Q. And that's part of the correspondence that we have here, if your Honor please, and is set forth very exactly in that correspondence.

Now, pursuant, Mr. Leir, to this contract——

The Court: One question—— [1145]

Mr. Alioto: I'm sorry, your Honor.

The Court: When did you first begin the manufacture of ferro-vanadium?

A. In 1940, your Honor.

The Court: What time?

A. It was in the latter part of 1940.

The Court: Would you say around November, December?

A. I would say, rather, in August or September.

Mr. Alioto: If your Honor please, there is in evidence a statement of sale which shows the exact date of the first sale and we will introduce other documents with respect to the date of the first purchase.

Q. Now, Mr. Leir, pursuant to this contract, did you in fact disclose to the Apex Company the methods and processes for making ferro-vanadium?

A. We did, and, as a matter of fact, the vice-

(Testimony of Henry J. Leir.)

president of Apex Smelting Company, Mr. Starmann, was sent to France to stay there for a while and to study on the premises the actual process of the French producing company.

Q. Now, then, the Apex Company did in fact install equipment to carry out the actual process of the French company?

A. They created the necessary equipment for installation to produce these alloys in the department.

Q. Would you be good enough to state, Mr. Leir, whether or [1145] not the ferro-vanadium produced was of a higher vanadium content than was customary in the country at the time?

A. I think I stated it already before. Our ferro-vanadium had a content of 80 to 90 per cent vanadium as compared with 35 to 56 per cent of the two American manufacturers. It was a higher grade ferro-vanadium, no doubt.

Q. And Apex manufactured in accordance with that higher grade formula, did it not?

A. Apex manufactured it.

Q. Did you undertake to do anything with respect to securing a source of supply of the raw material? A. I did.

Q. What was the raw material involved here, Mr. Leir?

A. The raw material involved in the production of ferro-vanadium is vanadic acid or sometimes called vanadium oxide or sometimes called fused

(Testimony of Henry J. Leir.)

oxide, and we did the necessary—we made the necessary steps to procure it for Apex Smelting.

Q. Just tell us some of the things that you did, Mr. Leir, in connection with getting a supply of vanadium oxide for the Apex Smelting Company to operate under this joint venture.

A. Prior to my coming into this country, I had already known quite a number of addresses in Colorado and Utah of producers of vanadium ore and vanadium oxide, but in addition we obtained further addresses from the Bureau of Mines in Washington, and we contacted all these producers —potential [1146] producers, in the months that followed, with the idea to obtain supplies from them for the intended production of ferro-vanadium in Chicago.

Q. From 1938 to about 1941 how many trips did you personally make out to the Colorado Plateau?

A. I made a number of trips. I wouldn't venture today to say how many trips I made, but I became very familiar with the whole region.

Q. Did you make at least six or seven trips out there? A. At least.

Q. You talked to vanadium producers and vanadium mill owners, did you?

A. I talked, I think, to most of them.

Q. What was the purpose in going out to the Colorado Plateau?

A. Well, the purpose was to create a regular supply of the vanadium raw material for our production in Chicago.

(Testimony of Henry J. Leir.)

Q. As a result of those contacts out on the Colorado Plateau, did you, in fact, make arrangements for the sale of vanadium oxide from those producers to Apex?

A. Yes. As a matter of fact, we made quite a few.

Q. I show you, Mr. Leir, some business records of the Apex Company and the Continental Ore Company under this contract. Would you be good enough to look at them and state whether those records set forth the Apex purchases of V_2O_5 by [1147] date and by seller for the period of time shown on those records?

A. (Witness examining) I would say this is a list of such purchases of raw material from the Colorado Plateau.

Mr. Alioto: We will offer these in evidence, if your Honor please. I believe counsel have already seen copies of this.

(Discussion between counsel.)

Mr. Alioto: After counsel has had an opportunity to inspect them, I will offer them in evidence as Plaintiffs' Exhibit next in order.

The Court: While counsel are looking at that, we will take a recess.

(Short recess taken.) [1148]

Mr. Alioto: If your Honor please, at the recess we had offered in evidence the two documents which counsel have now inspected. We ask that they be marked together as plaintiffs' exhibit next in order.

Mr. Holland: No objection, your Honor.

(Testimony of Henry J. Leir.)

The Court: It may be admitted.

(The two documents referred to were marked Plaintiffs' Exhibit No. 118 in evidence.)

[See Book of Exhibits.]

Mr. Alioto: This document, ladies and gentlemen, shows the source of supply of the Apex Smelting Company, one of the sources being the North Continent Mines, Incorporated, and being dated 1940-1941, the first purchases in 1940 being November 13, 1940, November 28, and December 10, purchases of approximately $29,000.

In 1941 they purchased from that company $133,000 of vanadium oxide.

The Court: What company was that?

Mr. Alioto: The North Continent Mines, Incorporated, in Colorado. There has been some testimony about that, as your Honor knows.

In 1942 they made purchases on January 24th of 11,200 pounds. The price was $9,200.

On March 12th they bought 12,198 pounds, the price being $12,908.

March 28th they bought 8,600 pounds. The price was $9,100. [1149]

April 26, 1942, bought 11,282 pounds, and the price was $12,185.

May 23rd they bought 5,634 and paid approximately $6,000.

May 30th they bought 6,100 pounds and paid $6,000.

June 18th they bought 5,300 pounds and paid $5,700.

(Testimony of Henry J. Leir.)

June 24th they bought 6,000 pounds, approximately, and paid $6,700.

Then shipments to Continental Ore were thereafter made, after the termination of the Apex contract on July 30th and August 24th, and for a period in 1943—that was from North Continent. The other suppliers during that period were Ackerman.

Q. (By Mr. Alioto): Now, Ackerman ran the Loma mill that we have some testimony about?

A. Yes, previously owned by Morrison.

Q. Yes. And there came a time when that was closed down and you couldn't further buy from that company? A. Yes.

Q. Blanding, purchases from Monticello—that is, from the J. J. Harris Company, F. H. Sitton, Dove Creek, and they were purchases from William G. Morrison. Morrison ran the Loma mill before Ackerman, is that correct? [1150]

A. Yes.

Q. Purchases from Nisley & Wilson are shown on this list. Purchase from Shattuck.

The Court: What dates were those purchases?

Mr. Alioto: The Ackerman purchase was on June 13, 1941, and on May 10, 1941. The net weights were 4,200 pounds, approximately, to 3,800 pounds.

From Blanding, those purchases started on January 11, 1941, and went through August—the opposite direction—it started August 2, 1940, and went up until January 11, 1941.

(Testimony of Henry J. Leir.)

At Monticello they started in April, 1941, and went to September, 1941.

From Morrison they started in March of 1941 to April, 1941.

From Nisley & Wilson they started in 1941.

The Shattuck purchases started on February 28, 1940, and they come up to June 24, 1942.

And in each case we have the pounds set forth, the vanadium content, the unit price, and then the total price.

Q. (By Mr. Alioto): Mr. Leir, did you personally make the contact and the arrangement for the sale with Ackerman? A. I think I did.

Q. Did you personally contact the Blanding company and carry on extensive correspondence with that company? [1151]

A. Yes, I did.

Q. Did you personally contact the Independent mill at Monticello? A. Yes, I did.

Q. And Mr. Morrison? A. I did.

Q. And, of course, you personally had the contact with Nisley? A. Yes, of course.

Q. And did you personally contact the Shattuck company? A. I did.

Q. At that time you made arrangements—you and Apex made arrangements to seek a regular supply from the Vanadium Corporation of America, did you not, on or about March of 1940?

A. I knew about it.

The Court: I didn't get your question.

Mr. Alioto: In March, I asked him whether they

(Testimony of Henry J. Leir.)

made an attempt to get a supply from the Vanadium Corporation of America. He said he knew about it. But I would like to call the jury's attention to Plaintiffs' Exhibit 63, which is a letter from Mr. Lippa of Apex Smelting Company.

Q. (By Mr. Alioto): He is one of the men with whom you negotiated, Mr. Leir? [1152]

A. One of the officials and main principals of the Apex Smelting.

Mr. Alioto: He wrote Vanadium Corporation of America on March 11, 1940:

"Please be good enough to let us have your very best price on quantity lots of vanadium pentoxide crushed to one-quarter inch and under. We desire this material for domestic consumption. Your immediate response will be very much appreciated."

There was no answer to that letter of March 11th.

He wrote again on March 8, 1940, saying:

"We enclose copy of a letter written to you on March 11th, to which we did not seem to have received a reply. This no doubt has been overlooked and we would appreciate hearing from you."

That is answered on April 20, 1940, by Mr. Gustav Laub of the Vanadium Corporation of America, in which he states, on April 20, 1940:

"Dear Mr. Lippa:

"In response to your letter of April 8th enclosing copy of your letter of March 11th, which apparently went astray, would advise that our position is such that we have no material to offer you at present."

(Testimony of Henry J. Leir.)

The Court: That had already been introduced.

Mr. Alioto: Yes, if your Honor please. I simply [1153] wanted to call attention to the other effort that was made while they were getting the independent supply.

Q. (By Mr. Alioto): Mr. Leir, during the period of the Apex contract were you able to get a regular supply of vanadium oxide, a steady, regular supply?

A. We couldn't get a regular supply.

Q. Did there come a time when you had conversations with the Apex Company about terminating the agreement?

A. As a matter of fact, this time came in about the beginning of 1942.

Q. Do you recall you had some discussions with the officials of Apex prior to the termination?

A. Yes, of course.

Q. Do you recall the officials of Apex with whom you had these discussions?

A. These discussions were always with Mr. Lippa; sometimes with Mr. Singer.

Q. Did your organization attempt to encourage them to go on producing?

A. We certainly did.

Q. However, there came a time when you decided to terminate the contract with them?

A. Yes.

Q. Prior to that termination did you know of [1154] any negotiations between the Vanadium

(Testimony of Henry J. Leir.)

Corporation of America and the Apex Smelting Company?

A. We were never aware of it.

Q. (By the Court): What is that?

A. We were never aware of it. We never knew that.

Q. (By Mr. Alioto): Specifically, were you aware of the negotiations that were read into evidence in this case?

A. No, certainly not.

Q. I show you a copy of a termination document on the Apex Smelting contract and ask you if those are the signatures of Mr. Starman and Mr. Lippa?

A. Those are the signatures of Mr. Starman and Mr. Lippa.

Q. Prior to the termination of the contract between the Continental Ore Company and the Apex Smelting Company did you make any arrangements with Apex Smelting to continue manufacturing Van-Ex?

A. We made a temporary arrangement with them, because we didn't want to allow them to stop from one day to the other. So we worked out a temporary arrangement.

Q. What was the nature of the arrangement you made with them, Mr. Leir?

A. That they would run the department at full capacity for three months, and probably also make some Van-Ex during that period. [1155]

Q. During the time that the Apex Smelting

(Testimony of Henry J. Leir.)

Company was producing ferro-vanadium under the arrangement did you have an occasion to have a meeting in Washington? A. Yes.

Q. Do you recall the approximate date of that meeting?

A. The date of that meeting was June 19, 1941.

Q. Do you recall where that meeting was held?

A. The meeting was held in Washington, in offices which became, later, War Production Board, or which at that time were already War Production Board.

Q. Do you recall who was present at that meeting from the vanadium industry?

A. I recall that Mr. Bransome, president of Vanadium Corporation, was present.

Q. Do you recall any discussion at that meeting relating to the vanadium situation, and specifically vanadium supplies? A. Yes, I do.

Q. Will you tell us what was said at that time?

Mr. Holland: Let us establish who was at this meeting, when it was, and where it was.

Q. (By Mr. Alioto): Do you remember anybody else that was present?

He has already said when it was and where it was.

Who else was present besides yourself and Mr. Bransome? [1156]

A. There were quite a number of people. I would say at least 15 men.

The Court: The date of this?

Mr. Alioto: June 19, 1941, the witness has said.

(Testimony of Henry J. Leir.)

The Witness: There were at least 15 men from the industry. There were representatives, as I said, not only of the Vanadium Corporation of America, but also the Climax Molybdenum Corporation, the Miami Copper Company, as producers of molybdenum, and a number of other gentlemen. I gave, the day after, or two days after, the list of all the gentlemen which were present to Apex Smelting Company in a letter which must be in the record.

Q. (By Mr. Alioto): I show you a document dated June 20, 1941, to Apex Smelting Company, and signed by yourself. Is that the document to which you refer? A. This is the letter.

Q. By reference to that document, would that refresh your memory as to everybody who was at that meeting?

A. No. As you can see from this letter, I had mentioned only the companies represented.

Q. By looking at those companies represented can you tell us who was there? Do you remember any of the men who were there other than Mr. Bransome?

A. Climax Molybdenum Company, to start with the first [1157] one, was represented by Carl Lobe, Jr., vice-president at that time.

The Molybdenum Corporation of America was represented by its president, Mr. Hersch.

Kennicott I don't remember.

Miami Copper, I have just stated, was represented by Mr. Singer.

(Testimony of Henry J. Leir.)

Electro Met, I wouldn't remember today who was representing Electro Met.

Vanadium Corporation, I stated it was represented by its president, Mr. Bransome.

Apex Smelting Company was represented by myself.

Bethlehem Steel, I don't remember.

Mr. Rees there, you will find the name of the gentleman who represented United States Steel Corporation.

Alleghanyludlum, I don't remember.

Republic Steel, I don't remember.

Q. Was there a discussion at that meeting about vanadium supplies?

A. Yes, it was the purpose of the meeting to discuss the situation in the vanadium industry at that time.

Q. At that time how many producers of ferrovanadium were there in the country?

A. Three producers.

Q. Electro Met, V.C.A., and Apex? [1158]

A. Electro Met, V.C.A., and Apex Smelting Company in Chicago.

Q. Apex had been producing for about nine months at this point?

A. I would say for at least eight or nine months.

Q. Was anything said about vanadium supplies at the meeting by you and by Mr. Bransome?

A. I don't remember—let me put it this way—the attitude of the two big——

Mr. Holland: I object to his testifying as to

(Testimony of Henry J. Leir.)

attitude. I think Mr. Leir should confine himself to the conversation.

The Court: Just state what was said.

Q. (By Mr. Alioto): Give us the substance of what was said, Mr. Leir, and that will show the attitude.

A. It was pointed out——

Mr. Holland: I think he should state——

The Court: No; state who said what.

Q. (By Mr. Alioto): Not give the exact language, Mr. Leir, but in substance, what did Mr. Bransome say and what did you say and what did any government representative say?

A. I heard during the meeting the opinion by the representatives of Vanadium and Union Carbide, according to which—— [1159]

Q. (By the Court): No. Who made the statements?

A. The representatives of the two vanadium producers.

Q. Who were they?

Q. (By Mr. Alioto): You have identified Mr. Bransome as one of them. A. As one.

Q. What was said.

Q. (By the Court): What did he say? What did Mr. Bransome say?

Q. (By Mr. Alioto): What was the substance with respect to supplies?

A. He did not foresee any scarcity of vanadium.

Q. What did you say at that time?

A. I was concerned with the overall situation

(Testimony of Henry J. Leir.)

and made specific recommendations to Washington at that time about how to forestall any possible scarcity of vanadium. I was convinced that the country did not have enough vanadium at that time.

Q. (By the Court): You are speaking now about Apex?

A. No, your Honor. I was convinced that the country——

Q. Oh, the country.

A. ——that the country would very soon enter a critical period—by which I mean, a critical period in which there [1160] would not be enough vanadium. And I made specific recommendations at that time, and a few days later in writing to Mr. Whiteside, who was the chairman of the committee, also what, in my opinion, should be done with regard to vanadium.

Q. (By Mr. Alioto): Was anything said at that meeting about the independent producers of vanadium oxide? A. Yes, of course.

Q. What was said about them?

Q. (By the Court): Who said it? State who said what, now.

A. I pointed out that there are several independent producers of vanadium oxide. I pointed out that there were five mills, two in Utah, one in Blanding, one in Monticello; three in Colorado, one in Loma, one in Gateway, one in Mount Rosa; making at that time 51,000 pounds—making, or having a capacity of making, 51,000 pounds of V_2O_5; and it was my recommendation to help them to increase

(Testimony of Henry J. Leir.)

their production in time in order not to be caught by a national emergency. [1161]

The Court: No, V_2O_5, is that the same as vanadium oxide?

A. It is the main ingredient, the main ingredient of vanadium oxide.

Q. (By Mr. Alioto): What did Mr. Bransome say about that suggestion?

A. Mr. Bransome didn't share my views.

The Court: What did he say? Just what he said.

A. I cannot tell you exactly his words but the opinion — Mr. Holland will probably object to the opinion.

Mr. Alioto: Just tell us what he said.

Mr. Holland: Did he say anything at the meeting at all?

The Court: Just state what was said by anyone present at the meeting.

Q. (By Mr. Alioto): What did Mr. Bransome say, the substance of what he said about your proposal to increase production at the independent mills?

A. Mr. Alioto, even if I lose the case I will not say anything which I don't remember exactly.

Q. You don't have to remember exactly. What is the substance of it?

A. I remember very distinctly that the Chairman of the Committee, Mr. Whiteside, asked me after the meeting to repeat in writing what I had said during the meeting and to make [1162] any suggestions which I would have in connection with

(Testimony of Henry J. Leir.)

the vanadium situation of the country. Which I did.

The Court: Who is Mr. Whiteside?

A. A. D. Whiteside was at that time Chairman of some raw production committee—I don't remember the exact name. The names change too often in Washington for these government agencies.

Q. (By Mr. Alioto): But he was a Government Official, in any event?

A. He was Chairman of the Committee.

Q. All right. Did you then make a written report pursuant to Mr. Whiteside's suggestion?

A. Mr. Whiteside requested me to do it, and I did it a few days later.

Q. Now, I show you a document dated June 23, 1941 and ask you if that is the written report you made on that meeting? A. This is the report.

Mr. Alioto: We will offer it in evidence, if your Honor please.

The Court: Well now, at that time, at the time of this meeting, was the production and sale of this material, this vanadium material, was that in the hands of the Government?

A. No, not at all. Not at all. The allocation by Government action came only much later, namely, in December of [1163] '41.

Q. (By Mr. Alioto): And this was in June of '41?

A. This was in June '41, and the allocation, which came in December '41, exactly confirmed my concern at the time of that meeting.

Mr. Holland: If the Court please, I object to

(Testimony of Henry J. Leir.)

the admission of this memorandum. This is about an 8-page document giving Mr. Leir's opinions on this case, among other things.

Mr. Archer: It wasn't written to any of the defendants, your Honor.

The Court: The objection will be sustained.

Q. (By Mr. Alioto): Mr. Leir, in any event, were you having difficulty getting enough of the raw material to supply the Apex contract at this time?

A. My difficulties, or Apex difficulties, if you want to put it this way, to obtain a regular source of supply for raw material had already started, yes.

Q. Were you ever able under the Apex contract, up until the time of its termination, to get a regular dependable source of supply of vanadium oxide?

A. I was not.

Q. What reasons were assigned by Apex for wanting to get out of the contract?

A. One of the reasons was the inability to obtain such a [1164] regular supply.

The Court: Well now, your contention there was that you couldn't get a regular supply. At the time of this meeting were you getting material?

A. Not sufficiently, your Honor.

The Court: But you got some?

A. I got some, yes.

Q. (By Mr. Alioto): In any event, after that reason had been assigned, the Apex contract was terminated? A. Yes.

The Court: At what time was it terminated?

(Testimony of Henry J. Leir.)

A. In 1942.

The Court: That was after the Government control began?

A. Yes, your Honor.

Q. (By Mr. Alioto): Now, Mr. Leir, we put a contract in evidence—two contracts in evidence, the Climax contract and the Imperial Paper Contract. Both of those contracts were negotiated by you, were they not? A. By myself, yes.

Q. Both the Climax contract and the Imperial contract? A. Yes.

Q. Did you attempt under the contract to get a source of supply for Imperial?

A. We did. [1165]

Q. Were you ever able to?

A. No, we could not.

The Court: Well, the allocation of these supplies was entirely in the hands of the Government, was it not?

A. Only for a certain period of time, your Honor.

The Court: But from '41 until February of '44 it was in the hands of the Government?

A. After December '41.

The Court: December '41?

A. To the end of '43.

The Court: In December, that was the month when the Pearl Harbor disaster took place?

A. Yes.

The Court: December '41.

A. Yes, your Honor.

(Testimony of Henry J. Leir.)

Q. (By Mr. Alioto): Now, during this period of so-called Government control you attempted to buy materials from Electro Met privately, did you not? A. We did.

Q. As you heard the evidence yesterday, where you asked for a requirements contract in the middle of 1943 when you had that price dispute?

A. Yes.

Q. And that was—— [1166]

A. We did it twice in 1943. We did it once in June and again in November.

Q. Yes. And you were seeking a private contract for the supply? A. Yes.

The Court: Well, if the control of it was in the hands of the Government how could an individual make a contract?

A. Your Honor, I was recognized at that time as a legitimate concern doing business in the United States and there was no question about getting the allocation. I had a good reputation at the time.

The Court: Did you get the allocation, that's the point?

A. If they would have given me the material, I would have obtained the allocation, there is no doubt about it.

Q. (By Mr. Alioto): Well, did you in fact get allocations when you were able to buy the material?

A Whenever we got the material from the supplier, we got the necessary allocation, which, as far as we are concerned, was only a mere formality.

Q. In other words, to make this plain, Mr. Leir,

(Testimony of Henry J. Leir.)

even though there was a Government allocation on, how did it work out mechanically, did you negotiate privately for a supply?

A. You would first negotiate with your supplier the terms [1167] of the contract, the quantity, the quality, the price, and after you had reached an agreement with your supplier you would go to the Government; the Government would put the stamp on it. But there was never any time when the Government would refuse to us, Continental Ore Company or to Apex, any such allocation, as it was called.

Q. And the Government did not refuse you any allocations after you had made a private deal for the materials you did in fact buy? A. Never.

Q. Including some materials you bought from these defendants, in small lots?

A. Absolutely.

Q. Now, for example, in June of 1943 when you had a price discussion in connection with the $1.10 as against the $1.15, that was a private deal you negotiated with the defendants, was it not?

A. As far as I remember, yes.

The Court: But even then you couldn't have gotten the material until there was an allocation?

A. Your Honor, if you would please repeat the question?

The Court: Even if you made an agreement with them for a supply of material, you could not have gotten it until there was an allocation by the Government?

(Testimony of Henry J. Leir.)

A. Absolutely, yes. [1168]

The Court: Yes.

A. But the allocation was not in doubt as far as we were concerned.

The Court: Yes.

Q. (By Mr. Alioto): Did any of these defendants refuse to deal with you in June of 1943 or November of 1943 on the ground that you could not get allocations?

A. It was never brought out.

Q. Now then, there came a time when Imperial Paper decided that it would not go into the ferrovanadium production, did it not?

A. Yes. I think it was late in 1944.

Q. What reasons were assigned by Imperial for not going into it?

Mr. Archer: I object to this, your Honor as being hearsay.

Mr. Alioto: If your Honor please, there is the case of Loew's v. Lawlor.

The Court: Objection sustained.

Mr. Alioto: Thank you, if your Honor please.

Q. I think, Mr. Leir, we will get some figures in as to what was actually done. The Continental Ore Corporation was organized in 1939, was it not?

A. On June 16th, if I remember correctly, 1939.

Q. Had you had prepared from your books and records at [1169] my request, Mr. Leir, a balance sheet of the Continental Ore Company as of the end of 1939 and '40, together with a statement of sales, profits, losses, cost of doing business?

(Testimony of Henry J. Leir.)

A. I have given the necessary instructions.

Q. I show you a document that was prepared. Was that prepared pursuant to your instructions under your direction? A. Yes, it was.

Q. Are the figures there, to the best of your knowledge, true and correct? A. Yes.

(Discussion among counsel.)

Mr. Holland: I don't believe this firm's balance sheet is material evidence in this case, your Honor, unless it is confined to the vanadium business. This is a balance sheet on his various businesses with his 18 offices all over the world.

Mr. Alioto: Not in 1939, it wasn't.

Mr. Holland: Whatever he had in 1939.

Mr. Alioto: There has been some testimony here as to how much money they had in the business.

The Court: The point is here, he has stated—This witness has testified that he was engaged in the sale of many alloys, different kinds. What his business in those alloys is certainly isn't the same as the sale of vanadium. [1170]

Mr. Alioto: No, if your Honor please, but among other things the balance sheet and the statement and the profits and losses would show the cost of doing business of the plaintiff's company.

The Court: No. You can't go that far. See, this was merely one part of the business.

Mr. Alioto: Let me make an offer on this, if your Honor please, so that we might have a record on it. We will offer the balance sheet and the statement of profits and losses for the Continental Ore

(Testimony of Henry J. Leir.)

Company, December 31, 1939, December 31, 1940, and we perceived that this is the type of evidence which we are specifically enjoined under the Flintkote case to have in the record at the peril of not having a complete record. Judge Barnes in that case, incidentally, if your Honor please, objected to the fact that the plaintiff in the case didn't have this kind of evidence in the record.

The Court: And the Court has read a number of the authorities which you have cited in your brief, your requested instructions.

Mr. Alioto: May I call specifically to your Honor's attention the Flintkote matter on this phase?

The Court: No.

Mr. Alioto: It is just a very short reference, if your Honor please.

The Court: I don't care to hear the authority here. [1171]

Mr. Alioto: All right. I might say for the record that the case I was going to call your Honor's attention to in this case was Flintkote against Lysfjord at 246 Fed 2d, 368 and specifically at Page 393, where, as we read this, we are specifically told to put this type of evidence in.

The Court: Well, you certainly can't say now that here's a man engaged in a number of businesses what his profits were or what his business was as to all of them. How could that apply to his particular sale of just vanadium? That is just one of the things that he sells.

Mr. Alioto: Because among other things, if your

(Testimony of Henry J. Leir.)

Honor please, there have been certain allegations around here that they didn't have any real investment in their business of selling alloys and metals. Now we would like to show the net worth of these companies and the increase in net worth.

The Court: Make your offer.

Mr. Alioto: And show how much was—. I have already offered the first document——

Mr. Holland: We won't object to your putting in evidence how much he invested in the Vanadium business, Mr. Alioto.

Mr. Alioto: When you have an organization selling alloys——

The Court: If you can limit your offer now to [1172] his investment as it affects vanadium the Court will permit you to enter it, but not as to all of it.

Mr. Alioto: The problem there, if your Honor please is this, if a wholesale grocery is selling 3,000 items, what is his investment in Dutch Cleanser? How do you get to that, Judge?

The Court: You couldn't claim that Dutch Cleanser was responsible for the entire cost of operation.

Mr. Alioto: That's right. But how would you do it?

The Court: Well, that's a matter for you.

Mr. Alioto: Well, I think we can do it by a combination of two documents, if your Honor please. I would like to offer the general balance sheet and then offer specifically the vanadium sales and from those two I think the Court and the jury

(Testimony of Henry J. Leir.)

can make an inference as to what went into this matter.

Now, I will offer both of those, so there won't be any question about it. In any event, this document I am offering the 1939-1940 balance sheet.

The Court: The objection will be sustained.

Mr. Alioto: I offer at this time the balance sheet of the Continental Ore Corporation for December 31, 1941.

Mr. Holland: Objection.

The Court: Objection sustained. [1173]

Mr. Alioto: I offer next the Continental Ore Company balance sheet and statement of income showing the cost of doing business for the year 1942 and '43.

Mr. Holland: Same objection, if your Honor please.

The Court: Objection sustained.

Mr. Alioto: That document also shows its capital investment, of the partners in the company.

We offer, too, the balance sheet prepared by certified public accounts in the normal course of business for the year 1944, balance sheet and statement of sales and profits.

Mr. Holland: Same objection.

The Court: Objection sustained.

Mr. Alioto: We offer next the balance sheet and the statement of income and profits disclosing the cost of doing business the year 1945.

Mr. Holland: Same objection.

The Court: Objection sustained.

(Testimony of Henry J. Leir.)

Mr. Alioto: For the year 1946.

Mr. Holland: Same objection.

The Court: Objection sustained.

Mr. Alioto: Well, let me complete it, for the year 1947, '48 and '49.

Mr. Holland: Same objection.

The Court: Objection sustained. [1174]

The reason that the Court sustains the objection is that these are not limited to the matters that are involved in this law suit. They are too general.

Q. (By Mr. Alioto): Mr. Leir, at my request did you instruct the controller of your organization to take from the books and records of Continental Ore Company, from the actual billings of that company, a statement of the sales of vanadium-pentoxide, ferro-vanadium, Van-Ex, Vanadium Silicide, made by the Continental Ore Company?

A. I did.

Q. I hand you a document, sir, and ask you if that is the document which was prepared pursuant to your instructions in this matter.

A. It is the document, yes. It is not a complete document, however. I mean——

Q. It doesn't show the Apex?

A. It doesn't show the Apex.

Q. Now I show you another document and ask you whether had prepared from the books and records of your company, the Continental Ore Corporation and Continental Ore Company, a statement of the sales of vanadium by year and by type, to-

(Testimony of Henry J. Leir.)

gether with the prices paid, including not only Continental Ore billings but the Apex billings as well?

A. Yes. This is the complete statement.

Mr. Alioto: We will offer these two documents in [1175] evidence, if your Honor please, in connection with the business done by the plaintiff's companies.

Mr. Archer: I have never seen them.

Mr. Alioto: You have never seen them but you were invited to have your accountants confer, and you turned it down.

Mr. Archer: We won't go into that.

Mr. Alioto: Don't say you have never seen it before.

Mr. Archer: Well, I haven't seen it before.

Mr. Alioto: You were invited to.

The Court: Let's not have any argument.

(Discussion among counsel.)

Mr. Holland: No objection, your Honor.

Mr. Archer: The only thing I ask, it says "Analysis of C.O.P." That means——

Mr. Alioto: Continental Ore. In other words, wherever "C.O.C." appears on the document, that means the Continental Ore Company.

A. Continental Ore Company.

Mr. Archer: How do you distinguish which are Apex and which aren't Apex?

Mr. Alioto: You will see, Apex, first of all, has been put in separately in another document, and there is a line down here showing what the Apex

(Testimony of Henry J. Leir.)

total is—for example, [1176] if you subtract $310,000 from $694,000, you will have it.

Mr. Archer: It is not by year?

Mr. Alioto: No, not by year.

Mr. Archer: We have no objection, your Honor.

The Court: Very well, it will be admitted.

(Two-page document "Continental Ore Corporation and Continental Ore Company—Sales of Vanadium" was received in evidence and marked Plaintiff's Exhibit No. 119.)

[See Book of Exhibits.]

Mr. Alioto: I would like generally to inform the jury of what these documents contain, if your Honor please.

The Court: Very well.

Mr. Alioto: First of all, they set up the years June 13, 1939 to December 31, 1939, and then they go down to 1940, right through 1949.

In the first column you have "Vanadiumpentoxide" the pounds and amount; the second column is "Ferro-vanadium", the pounds and the amount; and the next column is the "Van-Ex" the pounds and the amount; the next column is "Vanadium-Silicide" the pounds and the amount; and finally a total of all of these.

And this shows, ladies and gentlemen, from June 13, 1939 to December 31, 1939, there were approximately 48,000 pounds of Vanadiumpentoxide sold; the sales price was $59,000. There was nothing else sold that year.

(Testimony of Henry J. Leir.)

In 1940, they sold 38,000 pounds of Vanadium pentoxide [1177] for sales price of $51,000;

And they sold 15,648 pounds of ferro-vanadium for a sales price of $45,000.

The total that year was 53,000 pounds in the total amount of $96,000.

In 1941 the pentoxide sales were 8,495 pounds for $193,000. Or a total in that year of $203,000 sold.

In 1942 there were no sales of vanadium-pentoxide. The sales of ferro-vanadium were 27,000 pounds for $78,000. Van-Ex sales 71,000 pounds for $171,000, or a total of $249,000 sold during that year.

The next year, 1943, $53,000 sold, and then $14,000, and $17,000, and then in 1946 $240.

Of the total billings of the $694,000 sold of vanadium products, $310,000 were billed out of Apex. The difference between $310,000 and $694,000 was billed out of the Continental Ore Company.

Mr. Archer: There are no sales in '48 and '49?

Mr. Alioto: Not from any invoices we have, no, sir.

Q. Now, Mr. Leir, did you prepare from the books and records of the Continental Ore Corporation and the Continental Ore Company a statement of yearly sales, costs and profits on vanadium?

A. (Examining): I have had this prepared.

Q. The document I am handing you, is that the document that you had made up?

A. That's the one.

Q. To the best of your knowledge, are all the

(Testimony of Henry J. Leir.)

figures there true and correct and reflect the books and records? A. Yes.

Mr. Archer: May I see it?

(Discussion between counsel.) [1179]

Mr. Archer: May I ask a few questions on voir dire?

The Court: Very well.

Mr. Archer: This is a statement of yearly sales, costs and profits in respect to vanadium.

Q. Mr. Leir, did you prepare this statement?

A. Not myself.

Q. Do you know from what books it was prepared?

A. From the books of the corporation and the company.

Q. The general ledgers and the journals?

A. All the books.

Q. The invoices I would take it, then?

A. Of course.

Q. What I want to get for the record is just exactly what books were used. Do you know of any books besides your general ledgers, your purchase journals and your invoices?

A. I have given orders, strict orders, to prepare an extremely accurate statement as to the matter involved, and I am convinced that my orders were executed to the letter.

Q. Your Controller actually prepared it, the head of your Bookkeeping Department?

A. Yes. We had a sufficiently large bookkeeping department, numbering 75 people, which I em-

(Testimony of Henry J. Leir.)

ploy in New York right now, and there is a sufficient number of bookkeepers and accountants steadily who know what it means to present in court a statement of that kind. [1180]

Q. What I am getting at, for instance, you know you purchased $75,000 worth of ferro-vanadium from Electro Met in 1948?

A. 1948, for Switzerland, yes.

Q. Then it does not have foreign sales on here. In other words, it does not show any 1948 sales here, and I was wondering why that sale was not there.

A. If that is missing, you have a good point. There might be some items missing, but there are certainly no items on it which do not belong in it.

Mr. Archer: Your Honor, if there are some items missing, maybe it ought to go in subject to correction.

Mr. Alioto: I have no objection to doing that.

The Witness: Yes, let it go in subject to correction.

Mr. Alioto: In transcribing this much work, there may be an error in picking one sale up, Mr. Archer. I have no objection to it going in subject to correction.

Mr. Archer: It is suppposed to include foreign sales as well as domestic?

Mr. Alioto: That is correct.

Mr. Archer: There is obviously an omission of 75,000 pounds of ferro-vanadium in 1948 sold to Switzerland.

(Testimony of Henry J. Leir.)

Mr. Alioto: It could very well be, Mr. Archer.

Mr. Holland: Is the Controller who prepared this [1181] exhibit going to take the stand?

Mr. Alioto: The problem is, the man who prepared this exhibit has been in the hospital for the last two weeks, if your Honor please.

Mr. Archer: We did not put him there, did we?

Mr. Alioto: I don't know.

Mr. Archer: You are not blaming that on us?

Mr. Alioto: In any event, he is in the hospital. I think the books and records on which this is based——

The Court: Let it be admitted subject to correction.

Mr. Alioto: Yes. I think we should have had a conference before the trial started on this, as a matter of fact.

(The statement referred to was thereupon received in evidence and marked Plaintiffs' Exhibit 120.)

[See Book of Exhibits.]

Mr. Alioto: The books and records themselves upon which these were based were all made available to counsel for the defendant, if your Honor please.

Mr. Archer: That is correct, your Honor.

Mr. Alioto: And I will work out any suggestion that Mr. Archer has so there won't be any problem about it.

In any event, this document shows with respect to sales, total sales of $383,000. It shows the cost

(Testimony of Henry J. Leir.)

of those sales of $343,000. It shows a gross profit of $40,000 for [1182] the years 1939 through 1946. It shows the Apex billing separately, and it also shows the percentage of gross profit of the sales.

In 1939 that percentage of gross profit was 9.8; in 1940 it was 13.3; in 1941 it was 2.5; in 1942 it was 12.1; in 1943 it was 10.5 per cent. There was a loss on the transaction in 1944 on $14,000 worth of sales. In 1945 it shows 2.6 per cent of gross profit. In 1946, 11.4 per cent on one transaction.

The Court: At this time we will adjourn until 2:00 o'clock.

(Thereupon a recess was had until 2:00 o'clock P.M.) [1183]

Thursday, June 12, 1958—2:00 O'Clock P.M.

HENRY J. LEIR

one of the plaintiffs, a witness in his own behalf, on the stand at the time of recess, having been previously duly sworn, resumed the stand and testified further as follows:

Direct Examination —(Resumed)

Mr. Alioto: If your Honor please, this morning when we had offered the balance sheets and the profit and loss statements of the Continental Ore Company and the Continental Ore Corporation from July of 1939 through 1949, I do not believe that the documents were at that time marked, so I think there would be a problem of identification for the record.

(Testimony of Henry J. Leir.)

I would appreciate, therefore, if your Honor would be good enough to have the clerk mark them all as one exhibit.

The Court: Let them be marked for identification.

(The statements referred to were marked Plaintiffs' Exhibit No. 121 for identification.)

Mr. Alioto: If your Honor please, this morning the witness described certain arrangements that were made with Apex in connection with the termination of that contract, for them to go on manufacturing for a period of time, and those arrangements are not the subject of a formal contract, but are set forth in an exchange of correspondence. We offer the contract at this time as plaintiffs' next in order in connection [1184] with the Apex transaction.

Mr. Holland: There would be no objection. I think there is further correspondence. No objection to introducing that portion of it.

Mr. Archer: No objection.

The Court: Admitted.

(The exchange of correspondence referred to was marked Plaintiffs' Exhibit No. 122 in evidence.)

[See Book of Exhibits.]

Mr. Alioto: Just to complete the matter on worth, may I inquire of the witness:

Q. (By Mr. Alioto): ——whether or not, Mr. Leir, you have directed your controller to tabulate the increase in the net worth of the Continental

(Testimony of Henry J. Leir.)

Ore Corporation—the Continental Ore Company for the period from June 13, 1939, through 1949?

A. I did.

Q. And is this the tabulation which I hold in my hand, the tabulation made under your direction?

A. Yes.

Q. And does it actually reflect, to the best of your knowledge, the books and records of the corporation with respect to the net worth of this corporation and of this partnership during the period of time from June of '39 to '49? A. It does.

Mr. Alioto: We will offer this in evidence, if [1185] your Honor please. It is a tabulation of the annual statements that have already been offered, but it shows the picture on one page.

Mr. Holland: To which we object for the same reason we objected to the annual statements.

The Court: Objection will be sustained.

Mr. Alioto: May it be marked for identification so that it will be clear what is being rejected at the present time?

The Court: Mark it for identification.

(The tabulation referred to was marked Plaintiffs' Exhibit No. 123 for identification.)

Q. (By Mr. Alioto): Now, Mr. Leir, in addition to the Continental Ore Company and the Continental Ore Corporation, you also have a corporation known as the Austro-American Aluminum Corporation, do you not? A. I do.

Q. And what, generally, does that corporation deal in? A. In alumina and aluminum.

(Testimony of Henry J. Leir.)

Q. And that corporation dealt in those products for the period 1942 to 1949?

A. And up to this date.

Q. But at least up through 1949? A. Yes.

Q. Now then, you have another corporation called the Borites Corporation, is that correct?

A. Yes.

Q. And that corporation was in existence and operated for the period at least from 1948 and 1949, is that correct? A. It is.

Q. And what are the products with which that corporation deals?

A. A mineral known as barytes.

Q. (By The Court): What?

A. Barytes—b-a-r-y-t-e-s.

Q. (By Mr. Alioto): What are the uses of barytes?

A. Barytes is a material which is—a mineral which is considered one of the heaviest minerals in existence, and it is being extensively used, for instance, in the drilling of oil wells.

Q. Now then, you also have another corporation called the Coal Export Corporation which operated in 1947, '48, '49, and thereafter?

A. I did.

Q. And what is the nature of that corporation? What does it do?

A. That corporation exports coal derivatives, coal tar [1187] products, for instance, from the United States to all parts of the world.

(Testimony of Henry J. Leir.)

Q. You also have a corporation that deals in phosphates? A. Yes.

Q. Used for agricultural purposes?

A. For agricultural purposes, yes.

Q. Those are fertilizers used in agriculture?

A. Yes.

Q. And what type of phosphate is it?

A. It is the so-called phosphate rock from Florida, of which we export rather tremendous quantities every year regularly to various parts of the world.

Q. Now then, you also have a corporation known as Magnolithe Corporation, do you not?

A. Yes.

Q. And that operated in 1948 and 1949?

A. Yes.

Q. And what was the nature of that corporation, Mr. Leir?

A. That corporation was interested in the introduction of magnesia products—for sugar mills, for instance.

Q. Then, again, all of these corporations, in one form or another, are related to minerals, ores, alloys or chemicals; that is correct, is it not?

A. Yes.

Q. Now then, in the period after—— [1188]

Q. (By The Court): Identify for me, in what way are they interested in Continental Ore?

A. All these corporations form one group known today in the United States as the Continental Ore group, and the Continental Ore group is a family

(Testimony of Henry J. Leir.)

enterprise of which the main shareholders are Mrs. Leir, my mother-in-law, and myself.

Q. You mean that the owners, then, of the stock of the Continental Ore Company—the Continental Ore Company is the owner of the stock in all of these subsidiary companies?

A. Yes. The ownership is identical.

Q. But they are engaged in the various enterprises that you have testified to?

A. In the various enterprises, yes.

Q. (By Mr. Alioto): They operate out of the same offices in New York and the same offices throughout the world? A. Entirely, yes.

Q. And all of these corporations I have mentioned are owned by you, your wife, and your mother-in-law, and your wife's cousin?

A. Yes.

Q. Is that correct? A. Yes.

Q. Now then, after 1949 you had a corporation known as [1189] the International Ore and Fertilizer Corporation?

A. It is still in existence today.

Mr. Holland: If your Honor please, I was going to object to the introduction of any figures in respect to any of these corporations, but I have no objection to his speaking about the corporations. But here you have got one that didn't even come into existence until after this suit.

Mr. Alioto: I haven't mentioned any figures, if your Honor please. I simply want to identfiy these corporations before offering the document.

(Testimony of Henry J. Leir.)

The Court: This last corporation is one that was formed after this suit was filed.

Mr. Alioto: This corporation was operating after 1949, that's correct, if your Honor please. But I am offering these in connection with showing the managerial skill of this plaintiff in the field of minerals, alloys and ores, and I would like to identify them and then offer the document. I anticipate, in view of the Court's prior rulings, that the document will be rejected, but I would like to identify it.

The Court: Very well. Let it be marked for identification.

Mr. Alioto: May we have it marked for identification?

(The tabulation referred to was marked Plaintiffs' Exhibit No. 124 for identification.)

Q. (By Mr. Alioto): Mr. Leir, I show you 124 for identification——

I take it those pages will be 124 for identification?

The Clerk: Yes.

Q. (By Mr. Alioto): I show you 124 for identification and ask you to look at the corporations listed under the heading "Fiscal Years"—I don't think that we have mentioned all of those—and generally state for the record whether those are part of the Continental Ore group and have been since 1949, and whether you and your wife and your mother-in-law are the owners of those corporations.

A. We are.

(Testimony of Henry J. Leir.)

Q. Now then, the Continental Lead and Zinc Corporation, what does that deal in?

A. In lead and zinc.

Q. And the Continental Aluminum Corporation, what does that deal in? A. In aluminum.

Q. And the Brazilian Iron Ore Importing Corporation, what does that deal in?

A. Brazilian iron ore.

Q. And the International Asphalt Corporation, what does that deal in?

A. In asphalt products. [1191]

Q. Now, all of these companies that I have mentioned have been managed by you, have they not, Mr. Leir, from 1939 right down to the present time?

A. Up to date.

Q. In connection with Plaintiffs' Exhibit 124, does that represent a tabulation made by you of the net worth growth of each of these companies from 1939 to 1949, on the first page of the exhibit, and then from 1950 down to date on the second page of the exhibit?

A. It was not made by myself, but I had it made.

Q. It was made under your direction?

A. Under my direction, yes.

Q. It was made by your controller?

A. Yes, by the controller of the corporation.

Q. And that's the gentleman who has been in the hospital—is at the present time? A. Yes.

Q. To the best of your knowledge do the figures actually represent the net worth growth of the corporations for the period of time mentiond?

(Testimony of Henry J. Leir.)

A. In the amount of five and a half million dollars.

Q. State whether or not in your opinion the net worth growth of these corporations, which are engaged generally in the business of minerals, ores and alloys, would afford a reliable guide as to what your growth would have been in the [1192] vanadium industry in the absence of any restrictions.

Mr. Holland: I object to the question.

The Court: The objection is sustained.

Mr. Alioto: We will now offer, if your Honor please, the document which has heretofore been marked as Plaintiffs' Exhibit 124 for identification.

The Court: Objection sustained.

Mr. Holland: And, if your Honor please, I should like to have the remark that Mr. Leir made giving the figures of his growth verbally be stricken from the record.

The Court: Motion will be sustained. The jury will disregard the statement. It has nothing to do whatever with the issue in this case.

Mr. Alioto: Now, I just want to complete the record, if your Honor please, with respect to another matter. I will do it very, very quickly.

Q. (By Mr. Alioto): Mr. Leir, approximately when was it you started dealing in the mineral fluorspar? A. We made it in Germany.

Q. When did you start dealing with that mineral in the United States? A. In 1939.

Q. In other words, from the time you organ-

(Testimony of Henry J. Leir.)

ized the Continental Ore Company down to the present time have you [1193] dealt in fluorspar?

A. On a rather large scale, yes.

Q. Do you believe, Mr. Leir, on the basis of your experience, both in Europe and in America, in fluorspar and vanadium, that the two products are comparable from the standpoint of commercial occurrence and commercial distribution?

Mr. Holland: I object, your Honor.

The Court: Objection sustained. Calls purely for an opinion of the witness.

Q. (By Mr. Alioto): Would you state the specific facts, Mr. Leir, with respect to the comparability of fluorspar in its commercial occurrence and vanadium in its commercial occurrence?

Mr. Holland: I object, your Honor.

The Court: Objection will be sustained.

Q. (By Mr. Alioto): And the final question, if your Honor please, would you state, Mr. Leir, the specific facts with respect to the comparability of fluorspar in connection with its commercial distribution and vanadium in connection with its distribution?

Mr. Holland: I object, your Honor.

The Court: Objection sustained.

Q. (By Mr. Alioto): And finally, would you state the facts with respect to the competitive business condition in the fluorspar industry [1194] as distinguished from the comparative business condition in the vanadium industry in the period from 1939 to 1949?

(Testimony of Henry J. Leir.)

Mr. Holland: Object, your Honor. No foundation.

The Court: The objection is sustained.

Mr. Alioto: Well, on the ground of no foundation, is that because of lack of experience in each of these industries?

Mr. Holland: If we went into these two industries we would have to ask a hundred questions to find out the comparability.

The Court: The objection is sustained because it is immaterial.

Mr. Alioto: On that—in other words, I understand that——

The Court: Calling for an opinion of this witness.

Q. (By Mr. Alioto): Now, Mr. Leir, have you prepared a tabulation showing the fluorspar sales made by your company from June 13, 1939, down through 1949, and thereafter to 1957, broken down with respect to private industry, and your government sales?

A. I gave instructions to that effect, yes.

Q. Was that study prepared as a result of your direction? A. It was.

Q. Does that study accurately reflect the figures of fluorspar distribution in your company in the applicable [1195] periods?

A. I believe it does.

Q. Did you also direct the controller to make a tabulation of the fluorspar distribution in your company for the applicable periods? A. Yes.

(Testimony of Henry J. Leir.)

Q. And are these two documents the studies directed to be made? A. Absolutely.

Mr. Alioto: We will ask that these documents first be marked for identification as one exhibit.

(The tabulations referred to were marked Plaintiffs' Exhibit No. 125 for identification.)

Mr. Alioto: We will offer these in evidence, if your Honor please.

Mr. Holland: To which we object, your Honor, on the same ground.

The Court: Objection sustained.

Q. (By Mr. Alioto): Then finally, Mr. Leir, did you have prepared a document under your direction setting forth a computation based on the sales of vanadium that would have been made by Continental if it had the same percentage of the vanadium industry as it had of the fluorspar industry in the years 1939 to 1949? A. Yes.

Q. Is the document that I hold in my hand the computation that you had prepared setting forth those facts? A. This is the document.

Q. Does that document accurately reflect the figures set out in the document?

A. To the best of my belief.

Mr. Alioto: We will ask that this document be marked for identification.

(The document referred to was thereupon marked Plaintiffs' Exhibit 126 for identification.)

Mr. Alioto: We will offer it in evidence.

(Testimony of Henry J. Leir.)

Mr. Holland: To which we object, your Honor, on the same grounds. [1197]

The Court: Sustained.

Mr. Alioto: It is sustained on the ground it is immaterial and irrelevant?

The Court: Immaterial, not relevant.

Mr. Alioto: I take it, so there won't be any problem about not going out to the hospital and getting him, there is no objection on the ground that the Controller is not in the court at the moment? He was here for the first two days.

Mr. Holland: The offer should be subject to correction. I mean, we would have the right to look them over.

Mr. Alioto: We understand that, but there is no objection being made because of the fact that the Controller is in the hospital?

Mr. Holland: No, we would not take advantage of that.

Mr. Alioto: Thank you very much.

Q. Mr. Leir, with respect to the next phase of this questioning, I would like to direct your attention to the matter of the volume of business that might have been done with the facilities that you had under contract in various periods of time. I would like to ask you, for the record, to state the facts with respect to the volumne of ferro-vanadium that would have been produced by the Apex Company if it had a steady, dependable source of vanadium oxide during the period beginning [1198] in

(Testimony of Henry J. Leir.)

1940 through July of 1949, and with respect to that question I would ask you to base your answer upon all of the following factors:

One, your own business experience; two, your experience, European and American, in dealing in alloys for the steel industry; three, your knowledge of the business conditions of the Apex Smelting Company, its equipment, its plant, its personnel; four, your knowledge of the comparative merits of ferro-vanadium containing 70 to 80 per cent vanadium content as against ferro-vanadium containing 40 to 55 per cent vanadium content; five, your knowledge of the business records of the Continental Ore Company; six, your knowledge of the business records of the defendant companies relating to the volume of business done in the years in question, which records have been placed in evidence in this case; seven, your knowledge of the state of the industry during the time in question as known to you by direct experience and as it has been placed in evidence here by Mr. Burwell and Mr. Nisley, and the documentary evidence which has been admitted; and eight, your knowledge of the chemical and steel industries during the same time in question:

Would you be good enough to answer that question in the light of all those factors?

Mr. Holland: To which we object, your Honor. Highly speculative. It is based upon facts which have not [1199] been proved and it is also based on a request to consider several factors which the Court has already ruled are immaterial in this case.

(Testimony of Henry J. Leir.)

The Court: Objection sustained. Exception allowed.

Q. (By Mr. Alioto): Would you be good enough, Mr. Leir, to state the facts with respect to the volume of ferro-vanadium that would have been produced by the Imperial Paper and Color Company under the contract made between your company and that corporation if that company had a steady, dependable source of supply of vanadium oxide during the period of the contract, and I would ask you to base that statement of estimated volume on the same factors as previously mentioned.

Mr. Holland: To which we make the same objection, your Honor.

The Court: Objection sustained. Exception allowed.

Q. (By Mr. Alioto): Mr. Leir, will you state the facts with respect to the volume of business which you, by your companies would have done in the vanadium industry expressed in terms of a percentage of the total business done by the defendants in this action, as you have learned those figures from the evidence in the case; and if you would state those facts for the period from July 1939 through July 1949 and state them on the assumption that you were able to secure a steady, dependable source of vanadium oxide during the period in question. [1200]

Mr. Holland: To which question we object on the same grounds.

(Testimony of Henry J. Leir.)

The Court: Objection sustained. Exception allowed.

Q. (By Mr. Alioto): State the facts, Mr. Leir, with respect to whether or not your companies could have sold the total output of ferro-vanadium produced by the Apex Company during the period from 1940 through 1949.

Mr. Holland: I object, your Honor.

The Court: Objection sustained.

Q. (By Mr. Alioto): State the facts, Mr. Leir, with respect to whether or not your company, you or your companies, could have sold the total output of the Imperial Paper and Color Company under the estimate of that production during the years in question, they being the years of the contract from 1944 through 1948.

Mr. Holland: To which we object, your Honor, on the same grounds.

The Court: Objection sustained.

Q. (By Mr. Alioto): Mr. Leir, during the period of time between 1939 and 1940, if you had had a greater volume of the vanadium business, would you have had to increase your office force or your overhead expenses in order to handle that business?

A. I do not believe so.

Q. In other words, your personnel during that period of [1201] time was sufficient to handle that business?

A. We were sufficiently equipped to do it.

Q. You do not believe you would have had to

(Testimony of Henry J. Leir.)

increase your overhead in order to handle additional vanadium business?

A. Overhead slightly, yes.

Q. Suppose you had approximately 10 per cent of the industry or 10 per cent of the amount of sales made by those two defendants: Would you have had to increase your overhead insofar as getting new men was concerned?

Mr. Holland: Objection, your Honor.

The Court: Objection sustained. Wholly immaterial and speculative.

Q. (By Mr. Alioto): Can you make an estimate of what additional vanadium business you would have had in the period 1938 to 1941 in the light of the business conditions as they existed during that period of time?

Mr. Holland: To which we object, your Honor.

The Court: Objection sustained.

Q. (By Mr. Alioto): And the same question with respect to the period 1941 to 1944.

Mr. Holland: Same objection.

The Court: Objection sustained.

Q. (By Mr. Alioto): And the same question for the period from 1944 through July of 1949.

Mr. Holland: Same objection. [1202]

The Court: Sustained; exception allowed.

Q. (By Mr. Alioto): Mr. Leir, was your European ferro-vanadium business profitable?

A. It was very profitable.

Mr. Holland: I object, your Honor. It has nothing to do with this case.

(Testimony of Henry J. Leir.)

The Court: Sustained. It is immaterial.

Q. (By Mr. Alioto): Mr. Leir, what is your opinion on the question as to whether or not you would have had an established position in the vanadium business at the end of 1941 on the assumption that you were not restricted and you had a dependable source of vanadium oxide for that period of time in connection with your joint operating arrangement for the production of ferro-vanadium between your company and the Apex Smelting Company?

Mr. Holland: To which we object, your Honor. It is not based upon any facts proved in this case and immaterial.

The Court: Objection sustained.

Q. (By Mr. Alioto): In the light of the business conditions existing after 1941, state the facts with respect to whether or not, if you had an established business, that business would have reacted generally the same as the general business development in this industry, the steel industry, and American business generally from 1941 to 1949.

Mr. Holland: Same objection. [1203]

The Court: The objection is sustained.

Q. (By Mr. Alioto): What was the capacity of the Apex plant in the period from 1940 through 1942 at the time the plant was dismantled?

A. 6100——

Mr. Holland: Mr. Wolf has already testified to that.

Mr. Alioto: This man is more intimately ac-

(Testimony of Henry J. Leir.)

quainted with that situation, I think, than Mr. Wolf.

Mr. Holland: It is cumulative.

The Court: It is already in the record, is it not?

Mr. Holland: It is already in the record.

Mr. Alioto: I do not know whether the testimony is going to be exactly the same. This man knew a little more about it.

The Court: Let him answer.

Q. (By Mr. Alioto): What was the capacity of Apex during this period?

A. 1600 pounds per day, 1600 pounds of vanadium per working day.

The Court: For how long? A. Per day.

Q. (By Mr. Alioto): How many working days do you figure in a month?

A. 25 working days; in other words, about 40,000 pounds [1204] of V-contained in ferro-vanadium a month.

Q. If there had been a steady, dependable source of vanadium oxide at the time, could that plant have operated to capacity?

Mr. Holland: I object, your Honor, on the ground it is highly speculative and not based upon any facts in evidence.

Mr. Alioto: Has your Honor ruled?

The Court: Did you finish your question?

Mr. Alioto: Yes, if your Honor please.

The Court: Objection sustained.

Q. (By Mr. Alioto): Tell us something about the Imperial Paper and Color Company, Mr. Leir.

(Testimony of Henry J. Leir.)

Was that a rather large company, a successful company?

A. Imperial Paper and Color Corporation?

Q. Yes.

A. It is a large outfit which has been in existence for a great number of years in Glens Falls, New York. They employ at least 800 people, and they are to the best of my knowledge a concern of at least 8 or 10 million dollars.

Q. Tell us something about the Climax Molybdenum Company and the size of that company and anything you know about whether it is a successful enterprise.

A. The Climax Molybdenum is the outstanding example of mining in this country. I think their net worth today before [1205] the merger with American Metal should be definitely in excess of 50 million dollars.

Mr. Alioto: I take it that your Honor is sufficiently apprised of the ground on which the plaintiff has asked these questions and the cases on which the plaintiff relies so that your Honor will not want an argument on the point at this time?

The Court: Yes.

Mr. Alioto: We have no further questions.

Cross Examination

Q. (By Mr. Holland): Mr. Leir, although I was not fortunate enough to be born in San Francisco, I will try to handle the English language as well as Mr. Alioto does.

(Testimony of Henry J. Leir.)

The contract with the Apex Smelting Company, which is in evidence, dated July 1, 1938, is that contract similar to the one that you had with Fredet-Kuhlmann in Europe? A. No.

Q. The one outstanding difference, Mr. Leir, I would imagine, is, as I understand it, in the Fredet-Kuhlmann contract that you had in Europe, you supplied 50 per cent of the financing for the operations, is that correct? A. Yes, sir.

Q. And in the case of Apex, you supplied none of the financing: Apex supplied it all, is that not correct? [1206]

A. Correct.

Q. At the time that contact was signed, or shortly thereafter, on July 14th, 1938, there was an agreement made with you by Apex or an offer made by Apex through Fredet-Kuhlmann to employ you as a consultant and for certain services?

A. I remember that, yes.

Mr. Holland: I should like this document marked Defendant's Exhibit next in order.

(The document referred to was thereupon marked Defendant V's Exhibit 1-D.)

Mr. Alioto: No objection.

Mr. Holland: We offer in evidence Defendant V's Exhibit 1-D.

The Court: It will be admitted.

(Defendant's V's Exhibit 1-D was thereupon received in evidence.)

[See Book of Exhibits.]

Mr. Holland: Defendant's Exhibit V-1-D is a

(Testimony of Henry J. Leir.)

letter dated July 14, 1938, from Apex Smelting to Societe d'Electro-Chimie de Brignoud, regarding the employment of Mr. Henry John Leir as production consultant in the thermit department.

Q. Now, under the terms of this agreement, which I believe you operated under until approximately September, 1940, is that correct, Mr. Leir?

A. Under the terms of this agreement?

Q. That is, under the terms of this letter you were entitled to 10 per cent of the net receipts of the thermit department of Apex? A. Yes.

Q. And that was superceded in September, 1940, at a time when you relinquished this, is that correct? A. I relinquished it, yes.

Q. During the time that you were working under this, part of your duties was to procure raw materials for Apex, is that correct? A. Yes.

Q. And for that you were to be paid 10 per cent of the net receipts of the thermit department of Apex during the time that was in effect?

A. I guess not only for the procurement of the raw material, but for general services in connection with the production.

Q. Yes, but I mean that was part of your duties that were compensated for? A. Yes.

Q. In accordance with those duties, Mr. Leir, on July 27th, 1940, did you contact Mr. Daniel Milenski of the Blanding Company regarding the purchase of vanadium pentoxide from Blanding Mines Company? [1207-A]

(Testimony of Henry J. Leir.)

A. I contacted at that time quite a number of parties on the so-called Colorado Plateau.

Q. I hand you a letter from Henry John Leir to Mr. Daniel Milenski dated July 27, 1940, and ask you if you can identify it.

A. Yes, I identify this letter.

Mr. Holland: I offer this letter as our exhibit next in order.

Mr. Alioto: We have no objection, Mr. Holland.

(The document referred to was thereupon received in evidence and marked Defendant V's Exhibit 1-E.)

[See Book of Exhibits.]

Mr. Holland: This is a letter in which Mr. Leir orders a thousand pounds to be shipped from the Blandings Mining Company to Apex Smelting, the date being July 27th, 1940, and after discussing various terms of purchase, it says, "Until further notice we will pay a price of $1.03 per pound of V_2O_5 f.o.b. Thompsons, less 3 per cent."

Q. Now, what was the 3 per cent that was deducted there, Mr. Leir?

A. I couldn't tell you today what it was.

Q. Was that supposed to be a commission going to yourself or Continental Ore?

A. I doubt it, I doubt it, I doubt it very much.

Q. I hand you a letter of August 10th, 1940, to Mr. [1208] Milenski and signed by yourself and ask you if you can identify that letter (handing document to witness). A. Yes, I can identify it.

Mr. Alioto: No objection.

(Testimony of Henry J. Leir.)

Mr. Holland: I offer it as our next exhibit in order.

(The document referred to was thereupon received in evidence and marked Defendant V's Exhibit 1-F.)

[See Book of Exhibits.]

Mr. Holland: This is a letter from Mr. Leir to Mr. Dan Milenski, Cortez, Colorado, dated August 10th, 1940:

"I was again in Chicago last Thursday, where I saw our friends, the Apex Smelting Company. They expect the arrival of the 1,000 pounds which you forwarded in the meantime.

"However, I do not quite understand why you mentioned to them the price of $1.03 less 3%, when you approached them directly. As a matter of fact these 3% represent our commission and you will admit that we cannot work for nothing."

Q. Does that refresh your recollection as to the fact that this 3 per cent was a commission?

A. According to the terms of this letter, this was a commission, of course, but let me look into the records and find out the reason for having claimed the amount of about [1209] $30 involved, or even less than that, because for a thousand pounds the amount of commission, as you call it, involved, is about $25. There must have been a special reason why I claimed this $25 rather for the company in New York than for Apex. [1209-A]

Q. Well, I am not asking why you claimed it.

(Testimony of Henry J. Leir.)

I am asking you whether you claimed a commission or didn't?

A. Well, we would have to look into the correspondence because I am convinced there is some reason, some good reason, for it.

Q. And why did you say that Blanding should not have approached Apex directly and told them about this price and the commission?

A. As I said, there must have been some good reason for it.

Q. You say:

"The Apex Smelting Company is a very valuable customer for you, as I already explained; they are the only independent producer of ferro-vanadium in the United States and there is no doubt that they can accept your entire output.

"There is no sense, therefore, to annoy them and to increase the price, now that you have quoted them at the figure of $1.03 less 3% corresponding to practically $1.00 f.o.b. Thompson.

"We therefore ask you to reserve us our commission of 3% on this price and to send us your statement every month for such commission due to us." [1210]

In other words, you are telling them, are you not, because they talked to Apex they have to reduce their price to $1.00 to Apex and then in addition to that they are to send you a commission, is that not, Mr. Leir? I am just asking you what the letter says.

A. The letter speaks for itself. If you will fol-

(Testimony of Henry J. Leir.)

low me before the day is over or perhaps tomorrow to give you an additional answer to——

Q. Well, you can make any explanation you wish, Mr. Leir. And I am sure your counsel will give you full opportunity to explain.

Mr. Alioto: You plan to read the reply, counsel?

Mr. Holland: Pardon?

Mr. Alioto: You plan to read the letter that goes with it?

Mr. Holland: Well, I had two that are prior in date to that from Blanding to put in.

Mr. Alioto: We will offer it then later.

Mr. Holland: I may offer it. I don't believe I had that letter. I will be glad to put it in.

Q. I hand you a letter dated August 16, 1940, from Dan Milenski to Continental Ore Corporation, attention Mr. Henry John Leir, and ask you if you recall receiving that letter?

A. (Witness examining) It looks like a letter written to us. [1211]

Mr. Alioto: Can we agree, Mr. Milenski was an attorney?

Mr. Holland: Mr. Milenski was one of the principals of Blanding Mines Company, wasn't he, as well as being an attorney?

A. Yes, and an attorney.

(Letter dated August 16, 1940 from D. Milenski to Continental Ore Corporation was marked for identification Defendant-V Exhibit 1-G.)

(Testimony of Henry J. Leir.)

Mr. Holland: Offer V 1-G in evidence. Any objection to this?

Mr. Alioto: No, none at all.

(V1-G marked for identification was received in evidence.)

[See Book of Exhibits.]

Mr. Holland: This is a letter from Dan Milenski to Continental Ore Company, attention Mr. Henry John Leir, dated August 16, 1940:

"Dear Mr. Leir:

"We are sorry that we perhaps went too far in our conversations with the Apex Smelting Company. However, at the time that we talked to them over the telephone we had not as yet heard from you, and we were quite desirous of shipping the product.

"We of course realize that you must have [1212] a commission for handling, and apparently I had misunderstood as to your relationship with the Apex Smelting Company. However, we will be glad to bill the Apex Smelting Company for $1.03 f.o.b. Thompson, and then deduct and pay to you directly your 3% if this is satisfactory. We certainly desire to follow your wishes in the matter and see that you collect your commission regularly."

I hand you a letter of August 19, 1940, from yourself to Blanding Mines Company, and ask you if that is your letter?

A. (Witness examining) Yes, sir.

Mr. Holland: Please mark this as Defendant's exhibit next in order.

(Testimony of Henry J. Leir.)

(Letter dated August 19, 1940, from Continental Ore to Blanding Mines Company, was received in evidence and marked Defendant's-V, 1-H.)

[See Book of Exhibits.]

Mr. Holland: This letter to Blanding from Leir says:

"We have carefully noted your letter of August 16 and it is up to you to decide whether you want to maintain the price you quoted to the Apex Smelting Company or whether you prefer to increase it.

"All we want is the commission of 3%, which [1213] is a very moderate one."

There is further in the letter.

And, finally, will you mark as our next exhibit the letter that Mr. Alioto requested I put in.

(Letter dated August 23, 1940 from Blandings Mine Company to Continental Ore, was received in evidence and marked Defendant's-V 1-I.)

Mr. Holland: This, I take it, is the final one of this particular correspondence.

It is from Dan Milenski to Continental Ore dated August 23, 1940, and is in reply to the letter that I just read.

"Dear Mr. Leir:

"I have your letter of August 19 and state that we certainly do desire to increase the selling price of V_2O_5 as much as possible, and we desire to deal with you and your company.

"However, as explained in our letters, we took

(Testimony of Henry J. Leir.)

the matter up with Apex direct for the reason that your letter mailed to us from Pocatello, Idaho did not reach us until about the 28th of July. It was my understanding, from my conversation with you, that the Apex Smelting Company was your associate. We certainly have not had any bad experiences with your firm; and we desire [1214] to maintain relations with you. We know that you are very reliable; and as explained in our letter, our communications with Apex were carried on for reason of misunderstanding."

Q. Mr. Milenski says it was his understanding from his conversation with you that the Apex Smelting Company was your associate. That was correct, was it not? A. Yes.

Mr. Holland: (Reading.)

"Consequently, we are going to follow your suggestion; and in the future we will communicate only with you. We are mailing our invoices direct to you. However, I assume that we should mail the bill of lading to Apex. I assume also that if all invoices are mailed to you, that upon receipt of them by you, that you will advance the 80 cents a pound."

And so forth. Do you want the rest of it read?

Mr. Alioto: Yes, if you will be good enough to finish reading it.

Mr. Holland: (Reading.)

"I believe you can readily see that when you suggested that we draw sight draft on Apex for 80 cents, that Apex would have undoubtedly expected

(Testimony of Henry J. Leir.)

the invoices to be attached before they [1215] would pay any sight draft.

"We do not care to have any misunderstanding, and assure you that we have dealt in the best of faith, and that we shall continue to do so in the future.

"Will you please answer by Air Mail giving in detail your instructions as to manner and method of shipments, or if it is satisfactory to ship in 5,000 pounds lots.

"As to your commission of 3%, we certainly have no objection to it, and feel that it is entirely in reason and in keeping with good business practice."

Q. In other words, Blanding initially did pay a 3% commission to your firm for sales made to Apex Smelting, is that correct?

A. According to this correspondence, yes.

Q. Now, Mr. Leir, Apex Smelting didn't commence its operations of its Thermit Department until the fall of 1940, is that correct, although the contract was dated July 1938?

A. Yes. I testified they started, to the best of my knowledge, in August or September 1940.

Q. And at that time they had a steady source of supply in the Shattuck Chemical Company, did they not?

A. A small supply from Shattuck. [1216]

Q. And they also had Blanding, that is correct, is that correct, at the time they started up?

A. I suppose so.

Q. Well, don't you know?

(Testimony of Henry J. Leir.)

We have just rec'd correspondence in August of 1940 in which a thousand pounds was sent to Apex from—— A. Well——

Q. ——from Blanding, which was the initial shipment. A. Yes.

Q. Now, that started the shipments from Blanding, did it not? A. Yes.

Q. To Apex? A. Yes.

Q. And I believe at that time you felt that the ferro-vanadium business, that is, your sales of ferro-vanadium would not open up until 1941, January 1st, is that correct?

A. Opened up in the fall of 1940, Mr. Holland.

Q. But you felt that they would become greater in '41 with the first of the year, is that correct?

A. I expected them to increase continuously, yes.

Q. Well, they started in 1940 then and they were to increase continuously. It was your policy, however, was it not, and that of Apex, not to lay in any substantial supply of raw material? [1217]

A. I think it was our policy to lay our hands on whatever quantities of raw material we would be able to obtain.

Q. And to keep it for ferro-vanadium production of the Thermit Department of Apex Smelting?

A. Or to ship it in other directions, pending the completion of the ferro department.

Q. I thought you said the ferro department was in operation and that your sales of ferro-vanadium

(Testimony of Henry J. Leir.)

commenced in the fall of 1940. That is the period I am talking about.

A. The shipment you just referred to was, in your own words, a shipment dated July.

Q. That was August. But what I am talking about is September, say, of 1940, or August.

A. Yes.

Q. It was at that time your policy to lay in a supply of raw material at Apex, or was it your policy to sell it as soon as you acquired it?

A. It depended a little bit upon the technicians at Apex. They didn't want to run the operation too intermittently, and I think it was their policy to wait and to accumulate some stocks.

Q. And was that your policy also, Mr. Leir?

A. My own policy?

Q. Yes, that is, Continental Ore's policy as the [1218] associate of Apex, did you believe that they should lay in a supply of raw material?

A. I am generally speaking for building up a supply.

Q. Why did you adopt an opposite policy at that time? A. What was the opposite policy?

Q. Well, I hand you a letter that you wrote Apex on August 20, 1940, "Re: Blanding," and ask if you can read it.

A. (Witness examining) I identify the letter.

Q. You identify the letter? A. Yes.

Mr. Alioto: Is it the same one I have?

Mr. Holland: Yes.

Mr. Alioto: No objection.

(Testimony of Henry J. Leir.)

Mr. Holland: Offer it in evidence as this defendant's next exhibit.

(Letter dated August 20, 1940, to Apex Smelting Co. from Continental Ore Corporation, Mr. Leir, received in evidence and marked Defendant V's Exhibit 1-J.)

[See Book of Exhibits.]

Mr. Holland: This is a letter dated August 20, 1940, to the Apex Smelting Company from Mr. Leir, Continental Ore Corporation by Mr. Leir, re Blanding.

The Court: To Mr. Leir?

Mr. Holland: No, it is from Mr. Leir to Apex.

"Re: Blanding.

"We have your letter of August 19th and will [1219] try to reach Mr. Lippa on the telephone in order to you our remarks as to the following points."

I am skipping the ones that are immaterial at the present time.

Mr. Alioto: Would you mind reading Paragraph 2, in the light of the previous question?

The Court: Why don't you read the whole letter?

Mr. Holland: (Reading.)

"As long as we are re-shipping this material, we would prefer that you do not let the Blanding Mines crush the material down to 1/8", according to your letter to them of August 19th. In other words, the material should remain lumpy as it has been in the past."

Number 7.

"7. Blanding intends to ship 20,000 lbs. during

(Testimony of Henry J. Leir.)

the next two months; we think it advisable to re-sell exactly these 20,000 lbs. to other parties because there is a production of about 10,000 lbs. every month from Rifle and two new productions which will open very shortly in Arizona and Los Angeles respectively.

Our sales of ferro vanadium will start on a larger scale only in September/October and will only reach the maximum from January on when the new contracts for 1941 will go into effect. [1220]

"Blanding is in a position to increase the production to, let us say, 20,000/25 lbs. every month within sixty days' notice.

"Rifle is in a position to increase the production in a similar way.

"Our idea is to completely buy up both of these productions for the Apex and we can do it all the better if, in the meantime, we are in a position to take every pound they produce.

"Needless to tell you that your requirements have first call on all vanadic acid we can secure in the market. However, we repeat that in order to eliminate any buyers in the next months and strengthen your position, it is now necessary to sell certain quantities. We think with the 20,000 lbs. sold according to the above suggestion, the situation will be decidedly in our favor, especially during the period when we will have to make arrangements with the various producers for our own 1941 requirements."

Q. Well, this letter demonstrates, does it not,

(Testimony of Henry J. Leir.)

Mr. Leir, that you adopted a policy of not laying in a sufficient supply of raw material?

Mr. Alioto: Submit, if your Honor please, it's argumentative and the letter speaks for itself.

It seems to me, it is just the opposite. He wanted to get all of these productions——

The Court: Well, you can answer the question.

Mr. Alioto: He is asking him to comment on the letter, as I understand it.

The Witness: Mr. Holland, I am very glad that you give me the opportunity to read this old letter and——

Mr. Holland: This is a old case.

A. Yes. Yes, we all know. We all know. Not by my fault. And I give you the explanation, and the explanation is extremely simple.

I can now see from this very letter which you show me that the quantities which we bought from Blanding before the start of the ferro production in Apex went, as I would call it, went out for resale. They came to Chicago. They were probably repacked, but were directed to other destinations. On those sales, which had nothing to do with the other production of Apex—my associates, as you call them, and as I call them—and I don't think I betray them—on those sales outside of the ferro production of Chicago, I had definitely a right to this small commission of three per cent, which is the case of a thousand pounds——

Q. We weren't talking about the commission.

A. All this is——

(Testimony of Henry J. Leir.)

Mr. Alioto: Let him finish. [1222]

A. Excuse me, please. You cannot just take one letter and——

The Court: The question here is why would you want to sell,——

A. I can now very clearly see from this letter that I was at that time overruled by Apex Smelting not to put in too big raw material stocks, and to—rather, to keep buying continuously on the Plateau whatever we could buy and to make the best use of it. But we were, from this letter, we were told that we could expect regular supplies, which never materialized.

The Court: The question here is—now, you stated this morning that this company ceased operations because it couldn't get a regular supply of material. Now, why, if you had an opportunity here in August or September to buy more than you actually needed, why would you want to sell it rather than to keep it for the protection of the operation of your mill?

A. The installation was not ready, your Honor, in July and August, the installation to produce ferrovanadium was not yet ready.

And, on the other hand, we wanted to buy whatever quantity of raw material was offered to us and we did it.

Q. (By Mr. Holland): But you made an error in business judgment in selling part of that instead of keeping it, didn't [1223] you, Mr. Leir?

A. Everybody makes an error in judgment.

(Testimony of Henry J. Leir.)

Q. I'm not blaming you, I'm just saying that you did. Didn't you? A. Yes, I did.

The Court: At this time we will take a recess.

(Short recess taken.) [1224]

The Witness: Mr. Holland, may I say something?

Q. (By Mr. Holland): I don't know what it is.

A. I told you, Mr. Holland, that before the day is over I would give you the explanation for the three percent commission which we had requested from Blanding. I have in the meantime checked my records and have found a letter written by myself to Apex Smelting explaining to them in great detail and in very clear language that I would put the three percent entirely at their disposal. In other words, I did not do anything behind the backs of my associates.

Q. That is correct, you put the three percent at their disposal. That was later, wasn't it, Mr. Leir?

A. It was August 27, 1940. It was in connection with this business.

The Court: Well, I don't think that is very material.

Q. (By Mr. Holland): Very well. I will be very glad to have the record show that you subsequently gave that three percent to Apex.

A. I wouldn't say subsequently, Mr. Holland. I would say immediately.

Q. Well, on August 27th, is that correct?

A. I think this is rather promptly.

Q. I thought you said that was the date. [1225]

(Testimony of Henry J. Leir.)

A. August 27th.

Q. On August 27th you gave the three percent to Apex, is that correct? A. Yes.

Mr. Alioto: Here is the letter about it.

The Court: Let us get along.

Mr. Alioto: It was prior to August 27, as a matter of fact. The letter, which is dated August 27, 1940, says:

"In our opinion the final settlement should be done through New York, because we wouldn't have any chance at all to cash the three percent which, we repeat, will be made available to you again."

So obviously he told him before that time.

The Court: Well, let us go to something else.

Q. (By Mr. Holland): Mr. Leir, prior to commencing business in this country you had been operating in Europe, is that correct?

A. Yes, Mr. Holland.

Q. And there they have the cartel system where the market was entirely controlled, is that correct?

A. Yes, Mr. Holland.

Q. On coming to this country it was your desire to have a controlled market on vanadium, was it not? A. Definitely not. [1226]

Q. Didn't you want to keep anyone else out of the business if you could? A. I don't think so.

Q. I hand you a letter dated December 16, 1940, from Henry J. Leir to Louis Lippa. Mr. Lippa was then secretary of Apex, is that correct?

A. Of Apex Smelting, yes.

Q. I ask you if you can identify the letter.

(Testimony of Henry J. Leir.)

A. Yes, I identify it.

Mr. Alioto: We have no objection.

Mr. Holland: I offer this as our exhibit next in order.

(The letter referred to was thereupon marked Defendant V Exhibit 1-K in evidence.)

[See Book of Exhibits.]

Mr. Holland: This is a long letter from Mr. Leir to Mr. Lippa, dated December 16, 1940, and I am going to read only one portion of it. Mr. Alioto can read any other portion he wishes (reading):

"I am writing this letter while Mr. Hirschland is out of town."

Q. (By Mr. Holland): Who is Mr. Hirschland?

A. Mr. Hirschland was at that time, I think, treasurer of Continental Ore Corporation.

Mr. Holland (continuing reading): "He is in [1227] Nicetown, near Philadelphia, today, on a trip for ferro-vanadium, and I would suggest that any reply to this letter be sent to my home; you will find the address above.

"As you probably know, he is the nephew of Dr. Franz Hirschland, president of the Metal and Thermite Corporation."——

Q. (By Mr. Holland): What was the Metal and Thermite Corporation?

A. Metal and Thermite is a substantial industrial outfit in the City of New York.

Q. And they had and were, during the period from 1930 on, been dealers in ferro-vanadium, is that correct?

(Testimony of Henry J. Leir.)

A. They had been, in my opinion, the very first producers of ferro-vanadium in this country, long before the First World War.

Q. And they were also selling ferro-vanadium during the period from 1938 on, is that correct?

A. I do not believe so. They stopped production. They stopped production.

Q. They had been producers and sellers of ferro-vanadium, however, is that correct?

A. Prior to the First World War, yes.

Mr. Holland (continuing reading): ——"the firm which introduced the Goldschmidt process into [1228] this country 30 years ago. He was brought up in England and acquired a B.A. degree in law at Cambridge.

"We have found it is relatively easy for Mr. Hirschland to establish contacts with the consumers of ferro-alloys because he can simply refer to his uncle's firm, who for years were the only ones who made ferro-alloys by the alumino-thermic process in this country.

"As our program called for activity in these ferro-alloys in the U. S., I found it advisable to take Mr. Hirschland into the firm. I can assure you that as long as he is in the Continental Ore Corporation, Metal and Thermite will not reopen its ferro department."

Mr. Alioto: Counsel, the entire letter is in evidence, however? There is some other material. But we won't interrupt your examination.

(Testimony of Henry J. Leir.)

Mr. Holland: Yes, there are many other matters in this.

The Witness: Have you finished with this letter?

Q. (By Mr. Holland): I have read the part that I want to read.

A. I mean, have you finished with this matter? Because this letter speaks against you. Metal and Thermite was a [1229] substantial producer of ferro-vanadium prior to the time of the First World War, and they went out of business, in my opinion, only because they couldn't get a regular supply of raw material. It applies to them exactly the same as what later applied to us.

Q. But you hired Mr. Hirschland to make sure that they would not come back into the business, didn't you? That is what you say. I don't want to argue the matter, but as you say, the letter speaks for itself.

I hand you a letter to Apex from Continental Ore Corporation dated November 6, 1940, and ask you if you can identify that. Pardon me. I do not believe I gave you the whole letter. I think that is the second page of the letter.

A. Yes. It is not quite clear to me whether this is a letter written by me, because my signature is missing.

Q. But it is written by Continental Ore Corporation; it is on their stationery, is it not?

A. It isn't quite clear whether this letter even went out, because my signature is missing.

(Testimony of Henry J. Leir.)

Mr. Alioto: There seems to be a problem about whether it was ever sent, if your Honor please.

Mr. Holland: I can identify it later in our case as having been sent.

The Court: What is the objection to it?

Mr. Alioto: There seems to be a problem as to [1230] whether it was ever sent, but we are not concerned about that.

If you want to put it in, Mr. Holland, go ahead.

(The letter referred to was thereupon marked Defendant V Exhibit 1-L in evidence.)

[See Book of Exhibits.]

Mr. Holland: This is a letter from Continental Ore to Apex, dated November 6, 1940. Subject, Phillips Bros., New York. I will read a paragraph from it (reading):

"Paragraph 5. Furthermore you know that they are on the best of terms with Shattuck. If our memory is correct, Shattuck produced some ferro-vanadium in previous years. For all these reasons we recommend that you give no information whatsoever to Phillips Bros. As soon as the war is over there will again be international arrangements in ferro-vanadium which existed heretofore, and we must avoid bringing new parties into the ferro-vanadium field."

Q. (By Mr. Holland): I hand you a letter of October 16, 1940, from yourself to Apex, and ask you if you can identify that.

A. That is my letter, yes.

(Testimony of Henry J. Leir.)

Mr. Holland: I offer this as our exhibit next in order.

(The letter referred to was thereupon marked Defendant V Exhibit 1-M in evidence.)

Mr. Holland: This is a letter from Mr. Leir to [1231] the Apex Smelting Company, dated October 16, 1940, and reads as follows (reading):

"What do you think about your writing to (a) Vanadium Corporation of America, 420 Lexington Avenue, New York, (b) Electro Metallurgical Sales Company, 30 East 42nd Street, New York, and asking them to make you an offer on fused vanadic acid in shipments of about 5,000 pounds per month. It may be well to tell them that you might be interested in making a contract for 1941. We think it probable they will not refuse to make an offer. Furthermore, this correspondence might lead to a discussion about a joint market policy."

Q. (By Mr. Holland): Now, what did you mean, Mr. Leir, when you said "this correspondence might lead to a discussion about a joint market policy"?

A. We had already, at that time, the idea of making a product which we later made under the name of Van-Ex, and generally speaking I think industry should cooperate for the purpose of giving an extension to the market. There is a number of industries in this country which have so-called research institutes for the purpose of increasing the application, in this case, of vanadium, and this is what I have in mind. [1232]

(Testimony of Henry J. Leir.)

Q. What did you mean by a joint market policy with Vanadium Corporation and Union Carbide?

A. Nothing special.

Q. As a matter of fact, you did not do anything about Van-Ex for over a year after that, did you? Didn't you start Van-Ex when Apex had a fire in their ferro-alloy department?

A. Yes, it was about a year later.

Q. Let me ask you a general question, Mr. Leir, first. It was true, was it not, that Apex Smelting was reluctant to buy materials ahead? Is that not correct? And by materials, I mean vanadium oxide.

A. At certain moments, particularly before the installation was ready to make ferro-vanadium, yes.

Q. And did you not on several occasions make arrangements to purchase vanadium oxide, or tentative arrangements, from suppliers who asked for a contract for a specified quantity over a period of time, and Apex would refuse to do it?

A. I am not entirely aware of this fact, but maybe you have some correspondence about it.

Q. (By the Court): What is the answer?

A. I am not entirely aware about this fact.

Mr. Alioto: Mr. Holland, a moment ago you read the letter of October 16th. The witness, the very next day, suggested not sending it. You have only that one part in. [1233]

Mr. Holland: I will put this in.

Mr. Alioto: Thank you. He asked him not to contact them.

Q. (By Mr. Holland): I will hand you a letter

(Testimony of Henry J. Leir.)

dated October 17th. It appears to be a copy of one of your letters to Apex. A. Yes.

Mr. Holland: I offer it in evidence as our exhibit next in order.

(The letter referred to was thereupon marked Defendant V Exhibit 1-N in evidence.)

[See Book of Exhibits.]

Mr. Holland: This is a letter written October 17, 1940, by Mr. Leir to Apex.

Q. (By Mr. Holland): Now, that is the day following the letter in which you suggested this joint market policy arrangement?

A. Yes, the day after.

Q. Apparently you thought better of it the next day, is that correct?

Mr. Alioto: Why don't you read the letter first, Mr. Holland?

Mr. Holland: I am just asking the question. I am going to read the letter (reading):

"Re: Vanadium Corporation of America.

"We confirm our wire of today as follows: [1234]

"'Before Writing Vanadium Corporation Please Await Our Today's Letter.'

"In thinking over what we wrote to you yesterday it seems to us it might perhaps be unwise to contact them, because they may make a photostatic copy of your inquiry and use it against you in contacting consumers, hinting at your dependence upon raw material. However, this is only a thought, and it is up to you to decide."

Q. (By Mr. Holland): I hand you three letters

(Testimony of Henry J. Leir.)

dated December 3rd, 5th, and 6th, being your correspondence with Apex, or a portion of it, in connection with Mr. Morrison and his mill.

Mr. Alioto: No objection.

Mr. Holland: I offer these letters as our next exhibits in order.

(The letters referred to were thereupon marked Defendant V Exhibit 1-O in evidence.)

Mr. Holland: First is a letter from Mr. Leir to Apex, re Mr. William G. Morrison (reading):

"We have your letter of December 2d; unfortunately, we cannot use it as it is, to further our negotiations with Mr. Morrison.

"The draft we sent you on November 26th does not obligate you and we suggest you send us a letter as [1235] near as possible to our draft.

"Your sending us such a letter does not tie you up with Morrison, nor does it of course, with us.

"The premium we included for better material is something that should induce Morrison to ship material as good as possible, and your saving in the recovery will easily outweigh the slight premium we offered him.

"Also the clause, 'that price will be adjusted every three months' should be included."

Then a letter of December 5th (reading):

"Mr. Morrison telephoned us this morning and wanted to know whether you have reached a decision regarding his output.

"Please be good enough to send us the letter we

(Testimony of Henry J. Leir.)

requested, so that we can continue our negotiations with him.

"Otherwise he will contact other parties and this could only be to your detriment."

Q. (By Mr. Holland): Now, the letter you wanted them to send was one in which Apex obligated itself to take certain quantities of his supply, is that not correct?

A. From Mr. Lippa, yes. [1236]

Mr. Holland: And the letter of December 6, 1940, from Mr. Lippa to Continental Ore (reading):

"We have your letters of December 3rd and 5th regarding Mr. Morrison.

"As you know from past experience, we are inclined to be quite conservative and we hesitate very much about giving you a letter regarding a definite commitment.

"It seems that we are under somewhat of a moral obligation to accept material from Blanding and we will be under a moral obligation to accept more from Shattock should they be in a position to ship at a lower price. If we had definite orders for all of the material and then if we had definite assurance that the Morrison people would be able to carry out a contract, it might possibly make it easier to give you a letter such as you ask, but it all seems to us that it is still rather indefinite. In other words, we would like to link actual sales with actual purchases, but so far we do not have sufficient assurance that we will have the sale.

(Testimony of Henry J. Leir.)

"We hope that this explains our position to you and if you have any further suggestions, we will be glad to have you advise us." [1237]

Q. (By Mr. Holland): In other words, Mr. Leir, the Apex was unwilling to give Mr. Morrison a definite contract for a definite quantity, is that correct? A. According to this letter.

Q. And then I believe Mr. Ackerman, who is an old friend of yours, took over the Morrison mill, is that correct? A. Yes.

Q. That was in the spring of 1941?

A. About that time.

Q. I hand you two letters dated March 13 and March 14, 1941, and ask you if you recognize those.

A. Yes.

Mr. Holland: Offer them as this defendant's next exhibit in order.

Mr. Alioto: No objection.

(The letters referred to were thereupon marked Defendant V Exhibit 1-P in evidence.)

Mr. Holland: The first is a letter of March 13, 1941, from Continental Ore to Apex Smelting (reading):

"re: William G. Morrison, Grand Junction

"Louis Ackermann

"We had an opportunity to speak to Mr. Ackermann over the telephone last night.

"He arrived in Grand Junction Friday, March 7th [1238] and has checked the operation of Morrison's mill. According to what he told us yesterday, he is ready to sign with Morrison, but want

(Testimony of Henry J. Leir.)

to have assurances regarding his output; besides, Morrison of course wants to have guarantees from Apex and us regarding the purchase price of the mill, guarantees which we are not willing to give and which we do not recommend that you give either. (This latter remark is for your personal use only.)

"Mr. Ackermann plans to be in Chicago on Monday next, March 17th, together with Mr. Morrison.

"Unfortunately, you will be tied up with the Convention, but we think that if it is at all possible, you should try to spare them a few minutes and make them understand that:

"Apex covers their requirements through Continental exclusively; and that we, in turn, also are the sales agents so that the most logical thing would be that Continental makes the contracts with Ackermann as supplier of vanadic acid.

"We are making his suggestion, of course, only in order to relieve you, but if you want to give them the contracts direct, naturally we agree.

"However, if you want us to sign a contract with Ackermann, it must be understood that you in turn will protect us in making an agreement according to which:

"Ackermann's output up to, let us say, 15,000 lbs. a month, will receive the preference for a certain number of years, all things being equal, and that you authorize us to buy the output until the end of the year at $1.00, f.o.b. Chicago."

(Testimony of Henry J. Leir.)

The reply from Apex, L. Lippa, to Continental Ore, dated March 14th (reading):

"With reference to Morrison, it is unfortunate that they had to pick Monday to be in Chicago as the writer is going to be exceedingly busy and probably will not be at his office at all that day.

"We feel that a lot of thought will have to be given this matter before we can make arrangements for 15,000 lbs. a month, which would be in addition to that for which we have already contracted with Shattuck. Therefore, a very carefully planned proposition would have to be worked out."

Q. (By Mr. Holland): Now, as a matter of fact, Apex never did give Mr. Ackermann a contract agreeing to take 15,000 pounds a month, did it?

A. I'm not quite sure about it. Ackermann was in Chicago and was sufficiently encouraged by Apex Smelting to take over the mill, because his purpose of going to Chicago and speaking to the Apex people was to be sure that he would eventually, when taking over the operation of Morrison, get rid of his production.

Q. But to answer my question, he was never given such a contract, as you suggested, by Apex, was he?

A. I couldn't tell you that.

Q. You don't remember?

A. I don't remember.

Q. Do you remember whether any contract was made with him? Do you remember whether you

(Testimony of Henry J. Leir.)

made a contract with Ackermann to take his production?

A. I suppose we—I suppose we made a contract with him.

Q. And you were asking Apex to guarantee that contract, were you not, in this letter?

A. Yes.

Q. Do you know whether you ever got such a guarantee, or whether they ever made such a contract with Ackermann?

A. I couldn't tell you.

Q. Now, in the fall of 1941 you had a chance to encourage an independent vanadium mill named National Vanadium, isn't that correct—a proposed mill? [1241] A. Whereabouts?

Q. In think it was in Moab.

I hand you the correspondence.

A. I remember, now, some correspondence about it, yes.

Mr. Alioto: We have no objection to these letters.

(The exchange of correspondence referred to was marked Defendant V Exhibit 1-Q in evidence.)

[See Book of Exhibits.]

Mr. Holland: This is some correspondence between National Vanadium, Continental Ore, and Apex.

The first is a letter from National Vanadium to Continental Ore (reading):

(Testimony of Henry J. Leir.)

"September 10, 1941

"Dear Mr. Leir:

"I thought you would be interested in knowing that the government engineers have completed their preliminary examination of our properties and have recommended a complete survey and assay development with proper maps.

"The men who were sent were Mr. Jackson, chief engineer of the Bureau of Mines, with two assistants, also Dr. Hewitt, chief of the geological survey, with two assistants. The work will begin at once and rushed as much as possible with crews from both departments doing the work.

"I have taken up with my directors the matters we discussed in your office and here are a few of the questions which they asked me.

"(1) Will they sign a bonded five-year contract for the entire output of our 100-ton mill?

"(2) Will they pay $1.00 per pound fused V_2O_5, 85% or better, f.o.b. Thompson, Utah, and increase this price in the relation to whatever increase there might be in the price of their ferro alloy?

"(3) When will they furnish funds to stockpile ore on at least a two months anticipation basis, before mill is started or after?

"I am quoting these questions for your information and might add that my directors are interested in your proposition. I have also recommended it to them as I told you I would do."

The Court: To whom is that letter?

Mr. Holland: This letter was from the National

(Testimony of Henry J. Leir.)

Vanadium Corporation, which was a corporation which was proposing to build a vanadium mill near Moab, Utah.

The Court: To whom?

Mr. Holland: To Continental Ore.

The Court: Continental Ore. Very well.

Mr. Holland: Then there is a letter from Continental Ore, Mr. Leir, to Apex Smelting, dated September 16, 1941 (reading): [1243]

"Please find herewith enclosed copies of correspondence with the above.

"Kindly send us a letter which we can forward to them.

"In any case, we should be cooperative, in order to obtain this output, which, on the basis of 100 tons crude ore per day, we estimate as follows:

"Average of the ore . . . 2.5 tons

"Less 20% loss in recovery 0.5 tons

"2.0 tons daily

"=60 tons per month

"=120,000 pounds of V_2O_5

"However, you will remember that they want to make only 80,000 pounds Z of V_2O_5 per month, which would enable us to make about 40,000 pounds of V, on which we should be able to make a profit of about $8,000.00 a month.

"We shall be awaiting your news."

Q. (By Mr. Holland): And then you wrote National Vanadium, on September 16, 1941 (reading):

"1. We are willing to sign a 5-year contract for

(Testimony of Henry J. Leir.)

your total output, and will put up a bond to insure payments.

"2. The price they pay, which we mentioned the other day in New York, is $1.00 per pound delivered Chicago.

"3. We think that it is only fair that Apex should have an opportunity to see proof that your process is a good one, before they invest money for the ore stock pile."

And then on September 17, 1941, Apex wrote Continental Ore (reading):

"We have your letter of September 16th which is in reference to advancing money to cover a supply of ore to the National Vanadium Corporation.

"Mr. Singer and I have very carefully thought this matter over, and we come to the conclusion that we have so frequently expressed to you, and that is to keep ourselves from becoming involved in anything outside of our own operations. We, of course, are always glad to finance our own operations, but we do not feel it advisable to finance raw materials in the plants of others, and therefore, we regret exceedingly that we must turn down this National Vanadium suggestion.

"So far as a contract with them is concerned, we feel it is entirely too dangerous to tie up for a five-year contract, in fact for any length of time. We would be glad to give them a contract based on [1245] the market for Ferro Vanadium and for a per cent of our production. In other words, if

(Testimony of Henry J. Leir.)

we sell 50,000 lbs. of Vanadium contained material a month, we would guarantee to purchase from them 60 or 70% of that amount. A contract such as this would be flexible and would take care of us so that if business dropped off entirely, we would have no obligations."

The rest is on another subject.

And then a letter from Mr. Leir to Apex (reading):

"We have your letter of September 17th, which, frankly, we do not understand.

"As we note from the last paragraph of Page 1, you are temporarily holding up the new construction because of the raw material situation.

"Therefore, one would think that you would be anxious to tie up this new vanadic acid production.

"We agree with you completely that this agreement should be made in a very cautious form, in order to avoid any speculation or risk.

"We can also understand that you do not want to help in the financing of a stockpile of the raw ore.

"But you should at least give us a free hand with regard to signing a contract for the vanadic acid, in order to encourage them to create this new mill.

"We therefore suggest that you let us sign a contract with them according to which we would give them:

"Preference on all your requirements of Vanadic Acid for a period of 5 years.

(Testimony of Henry J. Leir.)

"The price would be $1.00 per pound V_2O_5 delivered Chicago, and would be related to your present sales price of the finished product, going up and down accordingly.

"We do not believe such a contract (we have signed a similar one with regard to the Deadwood Tungsten, as you know) would constitute any risk for you. It would then be a question only of how to manage the output from: Shattuck, Blanding, and Gateway. We think you can rely upon us to create larger sales of ferro vanadium, in the same proportion in which we obtain raw material.

"You must admit that the building of a mill for 80,000 pounds of V_2O_5 per month represents many times the output of Shattuck and Blanding, and we think that we have reason to offer them some inducement to go ahead in their project.

"Please let us have your reaction to the above."

Now, as a matter of fact, Apex refused to give them a contract for a specified quantity of oxide, did they not? A. Obviously, yes.

Mr. Alioto: How about Continental, Mr. Holland?

Mr. Holland: Did Continental give them a contract?

Mr. Alioto: They certainly offered to. That letter is only five days later.

Mr. Holland: Here's a letter dated September 26th. Shall I put it in as part of the same exhibit?

Mr. Alioto: Any way you want.

Mr. Holland: Let's make it the next one in

(Testimony of Henry J. Leir.)

order.

Mr. Alioto: They obviously offered it to them.

(The letter referred to was thereupon marked Defendant V Exhibit 1-R in evidence.)

[See Book of Exhibits.]

Mr. Holland: This is a letter from Continental Ore Corporation to National Vanadium Corporation, dated September 26, 1941 (reading):

"With reference to our most recent correspondence, we had the opportunity to discuss the situation with the Apex Smelting Company yesterday.

"1. They agree to let us sign up with you for 70% of their requirements. This is all we could obtain. They are on very good terms with their present suppliers of vanadic acid, and you will understand that they do not want to endanger these relations.

"2. While we estimate that this 70% of their requirements will absorb the biggest part of your production, there might be a surplus, which we should like to sell for your account, on a commission basis, to the smaller consumers of vanadic acid in this country and abroad. We would charge you a commission of 2%. It is understood, of course, that shipments to Apex would be exempt from this commission.

"3. With regard to this point, we refer to Point 3 in our letter of September 16th. We do not doubt that as soon as you are in production and Apex is convinced that you can supply them with the

(Testimony of Henry J. Leir.)

proper grade, something can be arranged to help you financially.

"We hope that the above is sufficient for the present."

Q. (By Mr. Holland): But, in any event, you refused to give them financial help, and so did Apex, is that correct?

A. I think the letter mentions that we were willing to extend some financial help to them.

Mr. Alioto: You omitted the postscript, Mr. Holland. [1249]

Mr. Holland: I didn't see it. I am not trying to omit anything.

Mr. Alioto: I know.

Mr. Holland (reading): "P. S. You will have noted from your discussion with Apex that they are very conservative. It is our personal opinion that the consumption of Ferro Vanadium will go up so very much that eventually every pound of your production will go to Apex. However, you will appreciate their attitude to their present suppliers." [1250]

Q. (By Mr. Holland): You did not offer them financial help, however, is that correct, and Apex did not?

A. I think it was mentioned in this letter that we were ready to do it.

The Court: Did you read the entire letter?

Mr. Holland: I did, yes.

The Court: That is the best evidence.

Mr. Alioto: Did you read this paragraph: "If

(Testimony of Henry J. Leir.)

you come East please let us know so that we can get together and make a definite contract along the above lines."

Mr. Holland: I thought I did, didn't I?

Q. You say, "We do not doubt that as soon as you are in production and Apex is convinced that you can supply them." A. Yes.

Q. "With the proper grade, something can be arranged to help you financially." Is that right?

A. Exactly.

Q. But you did not offer them any financial help in building their mill, is that correct?

A. That is a play with words.

Q. That would be financial help after the mill was built and in production, is that correct?

A. When the mill was built and in production the miller still needs some help.

Q. In the Fall of 1940 didn't Blanding ask you for some [1251] financing to help increase the size of their mill and didn't you turn them down?

A. No. In other words, they asked for some help and there was correspondence between us and Apex, according to which correspondence we suggested to Apex to put at the disposal of Blanding $10,000, of which amount we would participate to the extent of $2,500, which was exactly our participation in the business at the time.

Q. And Apex refused to do it, is that correct?

A. I have no recollection, but I have a definite recollection that there is a letter in which I offered

(Testimony of Henry J. Leir.)

my willingness to participate in the financial aspect to Blanding.

Q. I will have that letter, Mr. Leir.

A. Yes.

Q. But you never did give any money to Blanding and neither did Apex, did they, for financing?

A. I suppose from your questions that it was in a letter.

Q. Don't you remember?

A. I don't know.

Q. You do not remember whether you ever financed Blanding or not?

A. Let me look into my correspondence.

Q. Will you do that and I will ask you that question tomorrow?

A. If you will, please. [1252]

Q. In the Fall of 1941, October to be exact, Apex had a fire in the thermic department, is that correct? A. Yes.

Q. I hand you a copy of a letter written to you from Apex on October 25, 1941, and ask you if you recognize that. A. Yes.

(The letter referred to was thereupon received in evidence and marked Defendant Exhibit D 1-S.)

Mr. Holland: I offer this exhibit in evidence.

Mr. Alioto: No objection.

Mr. Holland: This is dated October 25, 1941, as written to Mr. Leir by Apex Smelting Company by William R. Bayer.

Q. Who is Mr. Bayer?

(Testimony of Henry J. Leir.)

A. The accountant of Apex Smelting Company.

Q. At the time? A. At the time, yes.

Q. And he wrote this letter, is that correct?

A. Yes.

Mr. Holland (reading):

"Dear Mr. Leir:

"We are writing this letter at the suggestion of Mr. Singer who has just returned from Washington and who is so busy analyzing the new situations in our business which are arising every hour that he could not take the time to dictate this letter.

"We had a fire in our ferro alloy department Thursday which will prevent operations in that department for approximately a month. The fire occurred when water leaking from a defective roof resulted in an explosion due to moisture in a crucible. Damage occurred to the complete stock of ferro material including the Deadwood Tungsten ore which is now wet and will have to be dried.

"As our aluminum department is so vital a part of the defense program, and as new problems on which decisions must be made are coming up practically all of the time, we have decided that we must concentrate all of our efforts and available space in this department, and must discontinue anything that would interfere with its operation.

"We received a telegram from you this morning notifying us of shipment of an additional lot of tungsten ore. We will handle this lot, but ask you to notify the Gilt Edge Mines that we cannot take delivery of any more tungsten ore as our other

(Testimony of Henry J. Leir.)

work necessitates the discontinuance of all ore trading and tungsten activities.

"As we stated above, we cannot possibly resume operations in the ferro alloy department for at least a month. We have unfilled orders on hand from Latrobe and Braeburn calling for a total of 6444 lbs. of vanadium contained. We have in our inventory sufficient ferro vanadium and vanadic acid to cover these orders, and in addition have received notice of a shipment from Nisley and Wilson.

"In addition to the above orders we today received from you an order for 5,000 lbs. of vanadium contained from Latrobe. We would suggest that you write to them telling them that a fire occurred in our ferro alloy department which necessitates the shutting down of operations for at least a month and asking them if they could place that order with and obtain the material from another producer.

"We have made an analysis of the results of operations in the ferro alloy department for the year to date and find that the profit resulting is so small in comparison with the effort and space devoted to this department that under the present situation we feel that we cannot afford to continue its operations.

"Of course we would no like to injure the position which you have gained with any of the vanadium customers, and if you feel that you would be materially affected by our discontinuance of operations other than the fulfilling of the above

(Testimony of Henry J. Leir.)

listed orders, we could possibly continue operations until the end of this year.

"We also believe that we should immediately notify all of our shippers of raw materials to discontinue making shipments to us until further notice.

"As you know Shattuck has been shipping 12,000 to 18,000 lbs. of ore to us——"

Q. By "ore" they mean oxide, do they not?

A. Vanadium oxide, yes.

Mr. Holland (reading): "——to us every couple of weeks, and we believe that we should call them Monday morning and advise that we cannot take any more deliveries. We would appreciate your sending us a telegram, or phoning us, Monday, in reference to Shattuck.

"If you feel that you should discuss this matter any further with Mr. Singer, you can either call him by phone or come to Chicago, but in either case please make arrangements in advance as Mr. Singer has been and will be out of town two or three days of each week.

"Awaiting your reply, we are [1256]

"Very truly yours,

"Apex Smelting Co."

Q. As a result of this letter you went to Chicago, did you not, Mr. Leir?

A. I think I went to Chicago.

Q. And you had a talk with the Apex people?

A. Yes.

(Testimony of Henry J. Leir.)

Q. And you were able to persuade them to continue, is that correct? A. Yes.

Q. And wasn't it at that point that Van-Ex was born?

A. The idea of making Van-Ex had been in our heads long before.

Q. I won't say conceived in your brain, but I mean the idea of actually making it and selling it.

A. Actually making it, yes.

Q. It was at that time that the experimentation commenced as to what was the best way to proceed?

A. To he best of my recollection it started at that time.

Mr. Holland: If the Court please, this is another subject, if your Honor wishes to recess.

The Court: We will recess at this time until 9:30 tomorrow morning.

(Thereupon an adjournment was taken until 9:30 o'clock a.m., Friday, June 13th, 1958.)

Friday, June 13, 1958, 9:30 o'clock a.m.

HENRY J. LEIR

one of the plaintiffs, a witness in his own behalf, on the stand at the time of adjournment, having been previously duly sworn, resumed the stand and testified further as follows:

Cross-Examination—(Resumed)

Q. (By Mr. Holland): Mr. Leir, at the time court closed yesterday I believe we had just dis-

(Testimony of Henry J. Leir.)

cussed the fact that you commenced the experimentation in connection with the production of Van-Ex immediately after the Apex Smelting Company thermite department had a fire, is that correct?

A. Immediately before, or immediately after—in any case, before the end of 1941.

Q. Previously introduced in evidence is a letter from you of November 5, 1941, which I would like to read—a letter from you to the Apex Smelting Company (reading):

"Thank you for having sent us copies of your correspondence with Blanding. Following our conversation of last Saturday we have already contacted several of our customers with regard to exo-thermic vanadium, and we want to tell you that the reaction is absolutely favorable.

"1. We expect to have a very satisfactory price for this new vanadium compound as we call it.

"2. We will easily sell whatever quantities we can produce.

"We see from your correspondence with Blanding that Mr. Milenski is going to visit you around November 10th. He is probably on his way to the East, and we must do everything to prevent him from dealing with other parties.

"We think you should offer him $1.05, delivered Chicago 'until further notice', and tell him that if his material proves to be reliable in quality, and particularly if he could increase the quantities, you will consider going up to $1.10.

"As a matter of fact, our calculation for the exo-

(Testimony of Henry J. Leir.)

thermic vanadium is already based upon the $1.10 price, delivered Chicago, as you can see from the following figures:

" $1.10 per pound V_2O_5 @ 178
—$1.958 per lb. V
0.042 Canning

$2.000
.10 Aluminum

$2.10

"The prices we offered, dependent upon the customer, were between $2.30 and $2.35, and we feel pretty certain that we can get them.

"Therefore, you can see for yourself that we should go up to $1.10 if necessary in order to secure the material for ourselves, and as much material as possible."

I won't read the last two paragraphs, which are not on this particular subject, unless you want them.

Mr. Alioto: No.

Q. (By Mr. Holland): Mr. Leir, were your mathematics in connection with the cost of Van-Ex as contained in this prediction approximately correct? A. Yes.

Q. At $1.10 for oxide?

A. $1.10 for oxide, yes.

Q. In other words, you figured with 10 cents worth of aluminum, it would cost you about $2.10 to make it?

A. With 10 cents of aluminum.

(Testimony of Henry J. Leir.)

Q. Ten cents worth of aluminum would make a cost of about $2.10 to make it?

A. All told, yes.

Q. And you planned to sell it for $2.35?

A. Yes; even $2.40.

Q. $2.40? A. Yes. [1261]

Q. On the 25th of November, 1941, which is marked Exhibit V 1-B, you wrote a letter to Apex saying (reading):

"We have your letter of November 18th, to which we can now answer, as we have just received the samples."

This opened the question as to whether the material should be ground one-quarter inch or one-eighth inch?

A. Yes.

Q. You said one-eighth inch was better than to use the one-quarter inch they had already had?

A. There was some discussion.

Q. That grinding was to be done by the mill, wasn't it? Apex was to receive that material already ground, is that correct?

A. If possible, yes.

Q. And then you said (reading):

"Don't you think it would be a good idea to add a little powdered fluorspar for two reasons: (1) you would make the whole mixture a little more complicated for the one who analyzes it and who wants to imitate it,——"

In other words, you wanted to use it primarily

(Testimony of Henry J. Leir.)

to conceal from a possible competitor what the product contained, is that correct? A. No.

Q. What do you mean by "(1)" there, then?

A. There were two reasons at that time.

Q. Yes. I mean, what is your first reason? I will read the second one later.

A. Not to show immediately the composition of what I would call a special material, exactly the same way Union Carbide is doing it today—exactly the same way.

Mr. Holland: That is immaterial, Mr. Leir, and we are not going to have to go into proof of what Union Carbide is doing today.

Mr. Alioto: I submit that is argumentative, if your Honor please.

Mr. Holland: I ask the witness to confine himself to the period.

The Court: Answer the question, please.

Q. (By Mr. Holland): (reading) "(2) we are convinced that some fluorspar will have an excellent effect with regard to the better fluxing of Van-Ex." A. Exactly.

Q. In other words, you wanted to use it for two purposes: First, to conceal what was in it; and second, as a flux, is that correct? A. Yes.

Q. Then on November 27th, two days later, you wrote an [1263] office memorandum, and you also wrote a letter to Apex on the same date, of which I would like to read a portion.

Mr. Alioto: No objection. You do not have to identify it.

(Testimony of Henry J. Leir.)

Mr. Holland: I offer the letters in evidence as the exhibit next in order.

(The letters referred to were thereupon marked Defendant V Exhibit 1-T in evidence.)

[See Book of Exhibits.]

Mr. Holland: Then about November 25th, Mr. Leir, it was tentatively planned by you to add some aluminum and some fluorspar in order to make Van-Ex, and to have the material ground preferably to one-eighth inch by the mill before shipment to Apex, is that correct?

The Witness: I suppose so.

Q. (By Mr. Holland): On November 27th you wrote an office memorandum in which you said (reading):

"Yesterday I saw Mr. Lenz, a chemist of the Climax Molybdenum Corporation, and gathered from him the following:——"

and I am reading only the part that refers to Van-Ex (reading):

"9. Lenz assured me that mixtures of vanadium with aluminum would lead, necessarily, to explosions, and warned me of the danger involved."

So at that time you were warned by Mr. Lenz, who I [1264] take it is an expert in the field, to look out for explosions if you added aluminum, is that correct? A. Yes.

Q. And on the same day you wrote a letter to Apex in which you said (reading):

"With regard to the amount of aluminum to be

(Testimony of Henry J. Leir.)

used, we are just now making some new investigations. We will know more in a few days. We think it very likely that we will suggest that you keep the amount of aluminum lower than you anticipated in order to avoid any danger of explosions in the steel furnaces. Therefore, until you have new information from us, please do not prepare any mixtures for Van-Ex."

A. I remember this correspondence. [1265]

Q. On the 3rd of December you wrote a letter to Apex——

Mr. Alioto: We have no objection, counsel.

The Court: What year?

Mr. Holland: This is 1941, December 3. Offer it in evidence as the exhibit next in order.

(Letter, Continental Ore to Apex, 12/3/41, received in evidence as Defendant Z Exhibit 1-U.)

[See Book of Exhibits.]

Mr. Holland: Mr. Alioto, there is quite a lot of correspondence on Van-Ex, and I have picked out just what I thought would tell a connected story, but if you want to put in any of the rest of it——

Mr. Alioto: We have some additional that we will put in after you are through, counsel.

Mr. Holland: On December 3, 1941, you wrote a letter to Apex:

"The man from whom we expect to receive some more information with regard to the correct amount of aluminum is, unfortunately, out of town and we will be able to see him only on Monday. In any

(Testimony of Henry J. Leir.)

case, we confirm our letter of November 27 and would ask you not to prepare any mixtures before we enlighten you a little more about the proper quantity of aluminum.

"Another question is, if you would have an opportunity in Chicago to approach a steel mill and place a few cans in their steel furnace, by preference an electric furnace, with varying amounts of aluminum in order to make a practical test, before actually shipping the material to the steel mills."

Did you want Apex to try out various mixtures with aluminum to see if they would explode in a steel furnace or what?

A. May I tell you my opinion? May I tell you how I read this letter? That we were extremely careful before placing any new material into the market. We wanted to make sufficient tests to be absolutely sure that the receiving steel mill would be happy with the material.

Q. Well, suppose Apex had put it in one of these steel mills and it had exploded. I don't quite get what you are driving at here with Apex.

A. The letter speaks very clearly of the few cans, and if you would have put, let us say, two or three cans into the steel furnace, this wouldn't have brought a tremendous explosion or dangerous explosion.

Q. Just a little explosion?

A. If you put it that way, a little explosion. But of no consequence at all for the steel furnace.

(Testimony of Henry J. Leir.)

Q. But as a result or eventually you decided not to use aluminum in Van-Ex, is that correct?

A. It was decided at that time not to use aluminum. We found a better way. [1267]

Mr. Holland: Offer letter February 23, 1942, from Mr. Lippa to Continental Ore Corporation, Attention: Mr. Leir, in evidence as our next exhibit.

Mr. Alioto: We have no objection to the letter.

(Letter, 2/23/42, Lippa to Continental, received in evidence as Defendant's V 1-V.)

Mr. Holland: Now, shortly subsequent to the time of the last letter, you and Apex had come to a parting of the ways, had you not, and had agreed on a period during which Apex was to make Van-Ex for you at cost?

A. You mean shortly after this correspondence?

Q. Yes. A. Yes.

Q. And on February 23 Mr. Lippa wrote you a letter——

The Court: What year?

Mr. Holland: This is 1942.

"We have your letter of February 21st from which we note that you have advised Braeburn——"

Now, Braeburn was one of the steel mills to whom you sold? A. One of our customers.

Q. Where was Braeburn located?

A. In Pennsylvania.

Mr. Holland (reading): "——that this material is ready. We regret that this material is not ready, and as stated, we have not received approval.

(Testimony of Henry J. Leir.)

"If Braeburn would like to have some Ferro Vanadium in place of this, and if we are able to produce it before the Department is closed down, we will be very pleased to ship it to them, if Washington will approve it.

"We wish to advise that we had ordered some steel drums, but when we found that Van-Ex was changed to a different business than that which we were discussing, we cancelled the order, as there is no use in having cans for anything we are not going to produce."

What did Mr. Lippa mean by Van-Ex being changed to a different business than that which we were discussing?

A. I couldn't tell you.

Mr. Holland: On March 27——

Mr. Alioto: Mr. Leir answered that letter the very next day.

Mr. Holland: Let's see it.

Mr. Alioto: And expressed some surprise——

(Exchange of documents between counsel.)

Mr. Holland: I don't think this is an answer at all.

Mr. Alioto: "We received your letter of February 23." That is the letter you just read.

Mr. Holland: Would you like me to put this in? I will be glad to.

Mr. Alioto: Thanks. [1269]

Mr. Holland: As our next exhibit, letter February 24, 1942, from Continental Ore, Mr. Leir, to Apex.

(Testimony of Henry J. Leir.)

(Letter, 2/24/42, Continental Ore to Apex, received in evidence as Defendants' V, 1-W.

Mr. Holland: "We received your letter of February 23rd, from which we learned for the first time:

"(a) That you decided not to ship Van-Ex.

"(b) That you apparently intend to ignore our letter of February 16th.

"We wish to draw your attention to the fact that we have entered into definite contracts with both Atlas Steels and Braeburn for the delivery of Van-Ex.

"Regarding the cans, we cannot see why you cancelled the order without letting us know, but the lack of steel cans is no reason for not shipping this material. It is as well to pack the Van-Ex in cardboard containers which are available everywhere for immediate delivery.

"In view of the fact that the shipment of Van-Ex would result in a considerable profit for the Ferro Department, we are positive that Atlas Steels and Braeburn should receive the quantities they ordered without any further delay.

"If, however, you want to forego this profit and ship the quantities ordered in the form of Ferro Vanadium, we agree to that, but it must be understood that the quantities are to be shipped under any circumstances, without fail."

Q. Now, there was more profit in Van-Ex than there was in Ferro Vanadium, is that correct?

A. A little more profit, yes.

(Testimony of Henry J. Leir.)

Mr. Holland: (Reading.)

"We wonder whether you have considered the effect——" This has to do with the termination. I plan to use this letter on the termination evidence.

Mr. Alioto: I would appreciate it if you would read the whole letter because it is in response to the other.

Mr. Holland: The rest of it has nothing to do with Van-Ex.

"We wonder whether you have considered the effect of discontinuing your Ferro Department upon Mr. Nelson and Mr. Jenckes of the War Production Board——"

The Witness: Pardon me. Mr. Nelson and——

Mr. Holland: Mr. Nelson and Mr. Jenckes of the War Production Board.

The Witness: Yes.

Mr. Holland: (Continuing reading) "—— to whom we applied for an improvement in the raw material supply for the Apex Smelting Company.

"You implied in your letter of February 23rd that [1271] the Ferro Vanadium Department will be closed down in the near future. We most emphatically do not agree with this unilateral decision.

"Since you did not answer our letter of February 16th, but seem to act as though it were never written, we must inform you that in this case we will have to take steps to safeguard our interest, and that of our customers.

(Testimony of Henry J. Leir.)

"As a matter of fact, the orders we have obtained are the products of considerable effort on our part, and their non-fulfillment would jeopardize our carefully built up relations with our customers, and would result in damaging not only your reputation, but ours as well. This would mean a very great material loss for us.

"We sincerely regret having to write to you in this way. You are, however, forcing our hand, since the treatment you are giving us is hardly ethical, and you leave us no other choice."

Q. In other words, at that time you were in a dispute with Apex as to whether they could cancel the contract or not, is that not correct?

A. Yes, but I learned now during the trial that during that very time your people were behind my back in contact with my associates. [1272]

Q. Well, that is a conclusion on your part.

A. Oh, no.

Q. I don't think the letters bear that interpretation at all.

A. It is evident—the evidence you brought——

Mr. Alioto: The letter speaks for itself. It is in evidence and it speaks for itself, Judge.

Mr. Holland: It does speak for itself.

Mr. Alioto: I think we can go——

The Court: The letter speaks for itself.

Mr. Holland: I agree with that, and, of course, we expect to go into that later.

Q. But my question was whether you at this time were in dispute with Apex as to whether they could cancel their contract.

(Testimony of Henry J. Leir.)

A. Yes, Mr. Holland, I was in dispute with my associates.

Q. And that was finally settled and I believe you previously testified by their operating for a period their vanadium department and making Van-Ex for a period at cost to you. A. Yes.

Q. Now, on March 28, 1942, you received a letter from George H. Starmann, Jr. of Apex.

Mr. Alioto: We have no objection to the letter itself, except that it is Mr. Starmann's opinion.

Mr. Holland: Well, I guess all these letters are the writers' opinions. [1273]

Mr. Alioto: That particular writer isn't here. That's the difference.

(Letter, 3/27/42, Starmann to Continental, received in evidence as Defendant's V, 1-X.)

Mr. Holland: On March 27, 1942, you received a letter from Mr. George H. Starmann, Jr. Who is he?

A. A young man; no official of Apex Smelting.

The Court: What?

The Witnes: A young man; no official — no officer of Apex Smelting.

Mr. Holland: Directed to Continental Ore Corporation, your attention: "Re: Vanadic Acid from Shattuck."

"We have checked the shipments of Shattuck Ore for the past year and find that the average SiO_2 content has been 1.1%. Understand, however, that this content has varied from .5% up to as high as 1.8%.

(Testimony of Henry J. Leir.)

"Although we have never made a determination for the Carbon content in the Shattuck Ore, we are of the opinion that there is none present since from the very method by which this Acid is prepared it seems that there should be no Carbon present.

"In our first shipment of Van-Ex we used 2% Fluorspar but since then we have been shipping just the plain Ore."

Q. Now, by that he means just the plain oxide?

A. The plain oxide, yes.

Q. "We found out that this small addition of Fluorspar could not be noticed."

A. "Did not"?

Q. "Could not be noticed." Would you like to see the letter?

A. Yes. No, I don't. Thank you.

Q. Well, now, Mr. Leir, it is pretty plain, isn't it, that these early shipments of Van-Ex from Apex, with the exception of the first one, that just straight vanadium oxide was shipped, isn't that correct?

A. At certain times straight vanadium oxide was shipped, that is correct.

Q. And what price was charged for shipments of straight vanadium oxide?

A. $2.00—between $2.30 and $2.40 per pound of vanadium contained.

Q. Now, Mr. Leir, I read yesterday a letter in which Mr. Bayer of Apex notified you of the fire in the Thermic Department. A. Yes.

(Testimony of Henry J. Leir.)

Q. And stated at that time that they would like to cease operating under the contract.

A. Yes.

Q. They later agreed to go on after your trip to Chicago about November 1st, at which time this Van-Ex business started, [1275] is that correct?

A. Yes.

The Court: Just a moment. I understand they were willing to go on until the end of the year.

Mr. Holland: That is what that letter said.

The Court: The end of it.

Mr. Holland: As a matter of fact, they went later than the end of the year. They operated the thermic department until April 1, 1942.

A. About that.

Q. And produced Van-Ex for you at cost until July 1, 1942. A. About that.

Q. Is that not correct? A. Yes.

Q. I have here a note from you to Apex which contains a reference to a wire you had received from Apex. Your note is dated January 27, 1942, which I would like to put in evidence.

Mr. Alioto: No objection.

(Memorandum, Continental to Apex, 1/27/42, received in evidence as Defendant V's Exhibit 1-Y.)

[See Book of Exhibits.]

Mr. Holland: On January 27, 1942, you wrote to Mr. Lippa, as follows:

"We received your telegram, reading as follows:

"In view of continued losses in our ferro depart-

(Testimony of Henry J. Leir.)

ment and the increasing difficulty in securing men to work [1276] in that department due to its hazardous nature we are compelled to advise you that we are forced to discontinue this department. Will do our utmost to fill present orders subject to approval from Washington."

Now, that was acknowledged by Mr. E. D. Leir in your absence. A. Yes.

Q. You recall receiving that wire?

A. I received such a wire, yes.

Q. And that was the first notice you had from Apex after January of 1942 that they wished to terminate the contract; is that correct?

A. The first notice came already by this letter from Mr. Bayer.

Q. Yes. I say, the first notice after that—in other words, they had agreed to go on producing; you had talked them into continuing with the contract, had you not, and then this—is this your first notice after that that they intended to terminate?

A. There might have been some other messages from Chicago to us in the meantime.

Q. At least by January 27, at the latest, they notified you they wished to suspend operations under the contract, is that correct?

A. We received this wire; there is no doubt about it.

Mr. Holland: Offer as defendants' exhibit next in order wire February 13, 1942.

Mr. Alioto: No objection.

(Testimony of Henry J. Leir.)

(Copy of wire, 2/13/42, Apex to Continental Ore, received in evidence as Defendant V's 1-Z.)

Mr. Holland: On the 13th of February, 1942, you received a wire from Apex reading as follows: "Cannot see our way to continue production Ferro Department beyond March 10th. We are stopping all shipment of ore."

Q. Do you recall receiving that wire?

A. Yes.

Q. And, as a matter of fact, Mr. Leir, Apex at that time, or the next day, 14th, did notify the shippers of ore to stop shipping their ore, is that not correct?

A. I am not quite convinced. We objected at that time to such a drastic measure, and there must be some correspondence in the record to the effect that we didn't approve of their action.

Q. Why, I am sure you didn't approve of it, but did they not at that time notify the shippers, Apex notify the shippers, to stop shipping their ore? A. I couldn't tell you this.

Q. You don't remember that? A. No.

The Court: At that time, now, Apex was able to [1278] get ore? A. Yes.

Q. (By Mr. Holland): On February 16, Mr. Leir, which would be three days after the last exhibit, you wrote a letter to Apex, which I would like to read from at some length.

Mr. Alioto: Why don't you read the whole thing?

(Testimony of Henry J. Leir.)

Mr. Holland: You want me to read the whole letter? O.K.

(Letter, Continental Ore to Apex, 2/16 42, received in evidence as Defendant V's Exhibit 2-A.)

Mr. Holland: This is a letter from Mr. Leir to Apex dated February 16, 1942, and this is the letter in which you set forth the Apex reasons for wanting to terminate and argued that their reasons were not sound, is that correct? A. Yes.

Q. (Reading.) "It appears that the main reason for your wanting to get rid of the ferro business is your need for space for other essential war production."

Now, that was the production of aluminum, is that correct? A. Yes, Mr. Holland.

Q. Which was the main business of the Apex Smelting?

A. Which was their main business.

Q. They are re-melters of aluminum, is that correct? A. Yes, Mr. Holland. [1279]

Mr. Holland: (Reading) "However, it seems that you are completely overlooking the fact that ferro vanadium is another very essential war item and that your position in this field has been fully recognized, as you can see from the letter of Mr. Evan K. Jeuckes, Assistant Chief, Vanadium Branch, War Production Board, Washington, D. C., dated February 11. This letter to you and a similar letter to us under the same date, refer-

(Testimony of Henry J. Leir.)

ence 40-EKJ1540-R, are the direct result of our intervention with Mr. Donald M. Nelson who referred the matter to Mr. Jenekes for proper attention.

"When Mr. Wolf visited you on January 28 you mentioned that your relations with Mr. Jenekes' office were not at all satisfactory, which also appeared from his remark over the phone that you should hire someone who knows the vanadium business. All this is now different and we dare say that this intervention through Mr. Nelson has obviously changed Mr. Jenekes' attitude. Our Demarche ended with a major success for Apex Smelting and therefore for us too.

"This changed attitude will facilitate our obtaining part of the new output from the new big vanadium plant in Monticello, Utah, and we even foresee that Mr. Jenekes will automatically make such allocations to you."

In other words, at the same time this letter was [1280] written, why, you had made satisfactory arrangements with the War Production Board for securing vanadium oxide, is that correct?

A. Yes, Mr. Holland.

Q. (Reading) "Whereas there are about 28 or 30 large remelters of aluminum in the country, you will find only:

3 producers of Ferro Vanadium
2 producers of Manganese Metal
4 producers of Ferro Tungsten

including Apex."

(Testimony of Henry J. Leir.)

Q. Now, under your contract with Apex, they were supposed to make ferro alloys other than ferro vanadium, were they not? A. Yes.

Q. Did they ever make any?

A. It is possible they made some titanium, ferro tungsten—I am not quite sure.

Q. In very minor amounts, is that correct?

A. Very minor amounts, yes. [1281]

Mr. Holland: (reading) "Also, Chicago has a much better strategic position than any other plant making the above materials, in either the Pittsburgh district or Niagara Falls.

"You mentioned that you have labor trouble. The fact exists, however, that two other firms are producing the same material. You know yourself that the fumes during the smelting can easily be taken off by a proper fan, and the construction of the long promised baghouse will also help in this respect. The dust from the grinding and mixing operation can be eliminated by performing this operation in a closed apparatus; this should be done not only for health reasons, but also to reduce losses of material. Besides, it is very easy to arrange to have Nisley & Wilson and Blanding ship you only ground material, as Shattuck does.

"As for the deficit in the Ferro department, I really thought that you would not bring up this point again, because I considered it completely settled in our last discussion in Chicago on November 1st and 2nd."

(Testimony of Henry J. Leir.)

Q. (By Mr. Holland): That is when you convinced them that they should go on?

A. That they should continue, yes. [1282]

Q. (Continuing reading) "The points which disprove this argument are the following:

"A. The Ferro department which (according to the contract) should allow the production of a complete line of thermit process metals, has never had the necessary equipment. As late as February 28, 1941, when I was in Chicago, you showed me the grinding equipment for the aluminum, which, however, was not completed even at that time.

"B. A good part of the losses resulted from the use of the aluminum-tin foil scrap."

That was because they had to use primary aluminum to make a satisfactory product, was it not?

A. They had to use a better grade of aluminum than scrap aluminum, yes.

Q. And a better grade of aluminum than they made, isn't that right, they being re-melters?

A. They had better grades of aluminum.

Q. Didn't they have trouble with their own aluminum in the production of ferro-vanadium?

A. I don't think that was correct.

Q. (Continuing reading) "C. Must we remind you that your own attitude seriously handicapped the development of the Ferro department? There was a time when you did not let us buy vanadic acid for [1283] fear of not selling the Ferro Vanadium; and you did not want to let us sell the Ferro

(Testimony of Henry J. Leir.)

Vanadium for fear of not acquiring the necessary raw material.

"D. We told you that we are on the best of terms with Latrobe Electric Steel, and we recommended in March, 1941, that we increase the price of the contract for Ferro Vanadium. However, (see your letter of March 17th), you did not approve. Result: lower earnings.

"You have promised us a 'new' plant for quite some time. You showed us plans (flow sheets) and mentioned that the new plant would definitely result in a lower production cost. We spoke about this new plant in Chicago on:

"February 28, 1941

"March 27 and 29, 1941

"May 26/27, 1941

"August 23/24, 1941

"September 24/25, 1941.

"In consideration of such a new investment, we arrived at an agreement as to a change in the old arrangements, and you expressed your complete satisfaction with our attitude.

"Finally, you wanted to make things simpler for yourself, and suggested a new arrangement with [1284] the Continental Ore Corporation, replacing the old one with Fredet Kuhlmann with a new one by which the Continental Ore Corporation would have to satisfy all demands of the French partner.

"It was also understood that the new investment would entitle you to a quicker amortization. In other words, I really endeavored to be a good sport.

(Testimony of Henry J. Leir.)

I want to remind you, at this point, that on a previous occasion I gave up an arrangement between you and Luxemburg regarding the production of metal powder, and that I also brought about your cooperation with Mr. Leute at a moment when he was on the point of signing up with the U. S. Reduction Company.

"I am disregarding the fact here that upon the outbreak of the war in Europe (September, 1939), you had not moved at all according to the contract concluded in July, 1938. I must remind you that if the Ferro department had been ready at that moment we would have been the beneficiaries of export prices of $3.50 and more per pound Vanadium.

"In our last conversation in Chicago on November 1st and 2nd, you urged us to increase the price of Ferro Vanadium to $2.80, and we promised you not to sell any more below that price. On December 19, 1941, we informed you of the conclusion of [1285] the contract with Latrobe, and you acknowledged receipt of our letter by yours of December 22nd (this is in answer to your letter of February 10th, in which you mention that you have not authorized or accepted any contract from the Latrobe Electric Steel Company).

"The cessation of the Ferro production would be a slap in the face to Latrobe, for instance, and we must remind you that Mr. Zenk of Latrobe made several interventions with Mr. Jenckes' office, and particularly praised the quality of your material.

(Testimony of Henry J. Leir.)

Latrobe is one of the biggest users of Vanadium in the country. They are excellent customers, not only now, but in peace time as well, and they will not hesitate a moment to introduce us to other steel mills the moment we have sufficient material available.

"You know yourself that wherever your Vanadium 70-80% has been shipped, we received new orders. Of course it is important to maintain contacts with the customers just now, during the emergency, if we expect them to give us orders in normal times.

"Now, during the biggest battle of production which the U. S. has ever passed through, is the proper moment to build up new business, and every shipment today means preparation for peacetime business. [1286] Even if we had no contract at all with your firm, you could not let us down just now, thereby wasting all the honest and successful efforts we have made over a period of more than 3 years.

"It is not our fault that you treated the Ferro department as a stepchild from the very beginning. If your set-up for the Ferro department were as modern as it is for the aluminum department, we could have already been in the production of Manganese Metal, for instance. You know that we suggested trials to you in the beginning of last year, when we also suggested the production of Ferro Columbium.

"The moment you have organized an adequate

(Testimony of Henry J. Leir.)

Ferro department, we will have enough business on hand, even without a pound of vanadic acid, viz. tungsten, manganese metal, which can be produced in quantities of 100,000 pounds a month and even more.

"However, everything is now much easier for you because of the intervention of Mr. Nelson in favor of the maintenance of the Apex Smelting Company as producers of Ferro Vanadium, whereby he clearly showed that he does not want to have a vanadium monopoly exercised by the two big producers. [1287]

"This was one of our arguments in contacting Mr. Nelson, and as you see, he agreed completely.

"If your other intended production does not leave any space at all for the Ferro department, then you should be able to find such space outside of your present plant.

"We daresay that the maintenance (and the ultimate growth of your Ferro department) will be a substantial contribution to your standing in Washington, particularly as you are the only aluminum remelter among so many others who had sufficient vision to go into the production of Ferro Alloys by the alumino-thermic process, thereby adding to the production of most essential war products.

"The Thermit department in the Apex Smelting Company, if properly conducted, will help you come to good terms with firms like:

(Testimony of Henry J. Leir.)

"Electromet

"Vanadium Corporation

"Climax Molybdenum

"Molybdenum Corporation

all consumers of granulated aluminum. You know that we do not exaggerate. We are convinced that you can get all their orders for aluminum powder one day, when you are again interested in it, over [1288] competition from the National Smelting Company, which today has practically a monopoly in this grade.

"You mentioned to Mr. Wolf that a new properly equipped Ferro department would mean an expenditure of about $60,000.

"In order to show you our spirit of cooperation, we should like to suggest that the present arrangements be changed to the effect that you retain 75% of the profit, therefore assigning only 25% to the French partner and ourselves. (The exclusive sales rights on the basis of a commission of 2½% would be reserved to us as heretofore.)

"However, if you don't accept even this gesture, and you think you must separate yourself from us just at this moment, thus wasting all the work we have done for years, we are ready to discuss this with you. In other words, we are ready to discuss the terms and conditions under which the present arrangements may be cancelled, but we can do so only if the conditions are reasonable enough to be accepted by our French partner also, which means first of all that no sudden shut-down

(Testimony of Henry J. Leir.)

can be allowed, and that you must promise us to continue the department in good faith for at least another six months, and abstain from any steps which would be detrimental to [1289] our French partner and ourselves."

You consider that a very fair statement of the situation, don't you, Mr. Leir?

A. I consider it as an excellent letter.

Q. I think it is an excellent letter, too.

A. An excellent letter.

Q. Even if I did have to read the whole thing.

A. An excellent letter. I told you, however, that this letter does not state all the reasons which I considered at that time as having been important for the decision of Apex Smelting to withdraw from me: and the additional reason was just exactly what I had not put into the letter, and I tell you the reason.

During the year 1941 Apex Smelting had become, let us say, dissatisfied—let us even say disgusted—about the attitude of certain officials in Washington. These officials in Washington were, first, Mr. Masters, who at that time was in charge of——

Q. Mr. who?

A. Mr. H. K. Masters, who at that time was in Washington, in charge of vanadium, and who really demonstrated a very unfriendly attitude towards us.

Mr. Masters left. He later became employed by the Climax Molybdenum Company. He was replaced by Mr. Jenckes, who I think is several times mentioned in this letter. [1290]

(Testimony of Henry J. Leir.)

Mr. Jenckes was not friendly at all. Mr. Jenckes became, I would say, correct, vis-a-vis, towards Apex Smelting, and to ourselves only when we had appealed to his superior, namely, Mr. Nelson, the chairman of the W.P.A. at that time. And Mr. Jenckes—you know it, yourself—later became an employee of Union Carbide.

Q. And Mr. Morrell, who later became an employee of Continental Ore, was also in the picture, wasn't he?

A. We had nothing to do with Mr. Morrell while he was in Washington. I think he was either employed by RFC, the Reconstruction Finance Corporation, or by Metals Reserve, either one, but we had nothing to do with him. He was absolutely not in charge, to the best of my knowledge, with regard to vanadium.

Q. (By the Court): Just at this point, war was declared in Europe, September, 1939?

A. Your Honor, I think it was exactly September 1, 1939.

Q. When was war declared by the United States against Japan and Germany?

A. At Pearl Harbor on December 6, 1941.

Q. That was Pearl Harbor. But when was war actually declared?

A. A few days later.

Q. Now, after the declaration of war, you refer here to [1291] these agents in Washington. Did the government take control, then, of all war materials?

(Testimony of Henry J. Leir.)

A. The events I just brought out orally happened before December, 1941, before the outbreak of the war.

Q. The government, then, even before the declaration of war, took control of the war materials?

A. There was some restricted control, yes.

Q. After the declaration of war was there very definite control by the United States Government of ferro-vanadium?

A. After the end of December, 1941, there was a so-called allocation system.

Q. And then materials could only be bought, shipped or sold to you under an allocation by the Federal Government?

A. Under allocation, yes.

Q. (By Mr. Holland): In any event, Mr. Leir, as your letter shows, your difficulties in Washington had been solved by the time this letter was written, is that correct, through the intervention of Mr. Nelson?

A. Through the intervention of Mr. Nelson, chairman of W.P.B., yes, sir.

Mr. Holland: I next offer in evidence a letter of June 2, 1942, from Apex Smelting to William M. Bayer, Assistant Secretary, to Mr. Leir.

Mr. Alioto: No objection. [1292]

(The letter referred to was thereupon marked Defendant V Exhibit 2-B in evidence.)

Q. (By Mr. Holland): I believe there is already in evidence, Mr. Leir, the documents on which the termination was based, which were an

(Testimony of Henry J. Leir.)

interchange of letters bringing about the situation that I described. A. I think so.

Q. The ferro department would operate until April 1st, and the Van-Ex would be made until the 1st of July at cost.

A. Something of that nature, yes.

Q. I now read a letter of June 2, 1942, from Apex Smelting to yourself as representative of Fredet-Kuhlmann.

Now, Fredet-Kuhlmann, of course, was still a party to the contract, were they not?

A. I am not quite sure whether we had not taken over their share.

Q. You had taken over a portion of it, isn't that correct?

A. Half of it, or all of it.

Q. But they were the original party?

A. They were the original party, yes.

Q. And therefore a notice of termination would properly be addressed to you as their agent, isn't that correct? A. Yes.

Mr. Holland (reading): "Dear Mr. Leir: [1293]

"We refer to our various conversations during these last weeks, and regret that we have to inform you of our decision to discontinue the production of Ferro Alloys as of April 30th.

"As a matter of fact, this department was an unprofitable one for various reasons, which we shall try to enumerate below:

"A. According to our contract with the Etablissements Fredet-Kuhlmann, they were to provide us

(Testimony of Henry J. Leir.)

with complete technical advice and assistance. The outbreak of the European war resulted in our not obtaining this complete assistance, and we were forced to arrive at our own conclusions by experimentation. This not only caused actual losses from faulty qualities produced, but also resulted in considerable delay.

"B. We had to contend with recoveries which were far below those expected, as far as the Vanadic Acid from Shattuck is concerned. We had correspondence with Brignoud on this point on March 25, April 11, 1940, but in spite of Brignoud's advice, could not materially improve that recovery.

"C. We also had continual trouble with our labor force, because of the health hazard involved in the production of Ferro Vanadium, in view of the [1294] poisonous character of Vanadium fumes and dust.

"D. When it was first decided to go into the production of Ferro Alloys, all calculations were based on the assumption that duraluminum could be used for this manufacture as it was in France."——

Q. (By Mr. Holland): Duraluminum is what?

A. Duraluminum is a mixture of aluminum with some zinc or copper in it.

Q. That is about the character of the product produced at Apex, is it not?

A. They have quite a variety of alloys.

Mr. Holland (continuing reading): ——"It became obvious, however, that the quality standards in this country with regard to copper do not allow

(Testimony of Henry J. Leir.)

the use of impure aluminum, and we therefore had to use material with as high as 99% purity for this manufacture, which considerably influenced the calculation.

"E. Regarding the production of Ferro-Tungsten, you know yourself that the sales prices are fixed at a level which makes it impossible for us to compete with the much cheaper electric furnace production." [1295]

Q. (By Mr. Holland): Do you agree with that, that they could not compete in ferro-tungsten?

A. That they could not compete with ferro-tungsten?

Q. As they say here, as a reason for their terminating the contract.

A. I couldn't accept that statement. I think the thermic reduction is cheaper than the electric furnace.

Q. This sets forth their views, with which you do not necessarily agree? A. Yes.

Q. Your views are set forth in the letter I just read? A. Yes.

Mr. Holland (continuing reading): "We tried by various improvements to overcome these adverse factors, but as the attached balance sheet, covering the period from June 30, 1939 to April 30, 1942 shows, the operations over a two year period resulted in a loss.

"This letter, therefore, is to be considered formal notice to you, as the representative of the Etablissements Fredet-Kuhlmann, that we avail ourselves

(Testimony of Henry J. Leir.)

of Paragraph II of our agreement of July 1, 1938, to discontinue the operation of our Ferro Department, in accordance with its terms. [1296]

"We request that you let us have your agreement to the above by return mail."

Q. (By Mr. Holland): Now, the basic contract provided, did it not, Mr. Leir, that in the event Apex sustained a loss of $7,500 a year over a two-year period, it was privileged to terminate the contract? A. Yes.

Q. And that happened, did it not?

A. That happened, yes.

Q. That was the technical basis for their termination?

A. That was their technical, formal basis for terminating the contract.

Mr. Alioto: The attached balance sheet which they refer to in that letter I have in my hand.

Mr. Holland: Well, put it in.

Mr. Alioto: Do you want to attach it to the letter itself? That will make your offer complete. That is the attached balance sheet. And we will see whether it bears out that statement.

Mr. Holland: I don't know. I have never seen this before.

Q. (By Mr. Holland): In any event, the termination was accepted by you, was it not, Mr. Leir?

A. Without any discussion. [1297]

Mr. Holland: I do not think it is material. This shows a $10,000 loss.

(Testimony of Henry J. Leir.)

Mr. Alioto: That was attached to the letter you read, and referred to in the letter.

Mr. Holland: It was not attached to the copy I had.

Mr. Alioto: If you will read the letter, Mr. Holland, it says "the attached balance sheet."

Mr. Holland: I will be very glad to add it to the exhibit.

(The balance sheet referred to was thereupon added to Defendant V Exhibit 2-B.)

[See Book of Exhibits.]

Mr. Holland: That is all—wait a minute. I have one more letter I wanted to introduce.

Q. (By Mr. Holland): Now, this Apex business terminated on July 1, 1942, is that correct?

A. According to this letter, yes.

Q. Subsequently you produced Van-Ex only at your Long Island warehouse?

A. We also produced some ferro-vanadium in conjunction with Climax Molybdenum Company.

Q. I mean as far as the Long Island plant which you operated is concerned, that just produced Van-Ex, is that correct? [1298]

A. I wouldn't call it a plant. In Long Island we produced Van-Ex only, yes.

Q. And that plant, I believe, has had only one employee regularly employed, who hired other men on occasions, is that correct?

A. There was one foreman, and he had a number of workmen. As a matter of fact, I remember the precise questions in January of this year by

(Testimony of Henry J. Leir.)

Mr. Archer about the names of six or seven, mostly Italians, whether they were employees of our warehouse operation, and I told him they must have been employed at that time. So we had quite a number of people. We had no labor shortage.

Q. No, you had no labor shortage, but actually, you only operated on a two-man eight-hour day, isn't that correct, one shift? You may have had various employees from time to time.

A. I remember we had one foreman, and he would direct the operation.

Q. And it only took two men to operate it, isn't that correct?

A. Two or three men, yes.

Q. All they had to do was to take this vanadium oxide that you received from the West, or from wherever you received it, and dump it into a mixing bowl, isn't that correct?

A. And put some—— [1299]

Q. And put the ingredients in?

A. And put some ingredients in it.

Q. Mix it and then repack?

A. And then put it into suitable cans.

Q. Subsequent to that time, in January, 1943, you again approached Apex with the idea of going back into the ferro-vanadium business, is that not correct?

A. In January, 1943? There might have been such correspondence. I don't recall it at the time.

Mr. Alioto: No objection.

(Testimony of Henry J. Leir.)

Mr. Holland: Will you mark this defendants' exhibit next in order?

(The letters referred to were thereupon marked Defendant V Exhibit 2-C in evidence.)

[See Book of Exhibits.]

Q. (By Mr. Holland): I read a letter from Mr. Lippa of Apex Smelting to you, dated—or rather, from you to Mr. Lippa, dated January 28, 1943, re ferro-alloys (reading):

"Dear Mr. Lippa:

"We are at last able to resume the production of ferro-vanadium since sufficient raw material is available and fully assured by the WPB."

When you say "We are able to resume," you did not mean you had resumed. You now had sufficient supplies so that you could resume, is that correct?

A. We would probably be very close to [1300] the point of resuming production.

Q. (continuing reading) "Inasmuch as we cannot, unfortunately, count on Mr. Starman at the present time, we have made arrangements with a first-class specialist who is familiar with production not only in the electric furnace, but by alumino-thermic and silico-thermic reaction as well.

"While reduction by silicon would be somewhat cheaper, we would of course prefer the alumino-thermic process if only to maintain our business relations with you.

"And we would prefer also to have you join our new enterprise in one way or another so that you could watch it from the first moment on.

(Testimony of Henry J. Leir.)

"We intend to form a separate corporation in any event for this manufacture according to one of the two following plans:

"a) The new corporation to finance the entire business on its own account and keep all the profits. Sales: through C.O.C. on a 2.5% commission basis. Capital: between $50,000 and $100,000 of which approximately $5,000 would be allocated for equipment, the remainder for raw material and working fund. [1301]

"b) The new corporation to be formed with a small capital: $1,000, $5,000 or $10,000, and with the purpose of converting vanadium oxide only on a toll basis for the account of C.O.C. at cost plus 10%. Financing of raw material, etc., by C.O.C.

"We would very much like to have you join us in either combination.

"We can tell you that if you personally prefer Proposition B, we would not ask your aid in financing, not even as regards the aluminum, since we have assurances from our bankers concerning an adequate credit.

"We believe there are such large possibilities for the future in this field that we would like to be associated with you right from the beginning. We are confident that once the war is over you will be more interested than now in this alumino-thermic field.

"If Apex as a firm cannot join us, we suggest that Mr. Singer, you and Mr. Starmann come into the new corporation as individuals.

(Testimony of Henry J. Leir.)

"I am enclosing herewith a balance sheet of our firm as of December 31, from which you can see that we have expanded our business again during the past year. [1302]

"The new enterprise would start with ferro vanadium and later take in

"ferro zirconium

"ferro titanium

"For your information, the business in Van-Ex would be discontinued.

"May we hear from you?"

Well, now, Mr. Leir, then in January of '43 you had assurance of ample supplies of vanadic acid, is that correct?

A. Yes.

Q. And also you wanted to go into the ferro-vanadium business, and you wanted to discontinue Van-Ex, is that correct?

A. Because Mr. Lippa had expressed, in the previous correspondence, the desire not to be interested in Van-Ex.

Q. You say "For your information, the business in Van-Ex would be discontinued," which I assume means that you would intend to discontinue that business.

A. Only in so far as the association with Mr. Lippa was concerned.

Q. If Mr. Lippa and Apex would come in?

A. Yes.

Q. And they replied to you—Mr. Lippa did, on February 1, 1943 (reading): [1303]

(Testimony of Henry J. Leir.)

"Dear Mr. Leir:

"Please accept our thanks for your letter of January 28. I have discussed this matter with both Mr. Starmann and Mr. Singer and we all regret exceedingly to advise that due to the demand upon our time at Apex it would not be advisable to associate ourselves with any other enterprise at this time.

"Furthermore, from an investment standpoint, in view of the high taxes, there really is no great advantage to us. As a matter of information to you, however, I would like to call your attention to your plan 'a'. You will note that you stipulate approximately $5,000 will be allocated for equipment. As you know, our investment and equipment was considerably higher than that and was greatly inadequate for a sound, efficient business. We believe that you are making a mistake in figuring so small an amount for that item."

Now, Mr. Lippa was probably correct in that, wasn't he—$5,000 was a little low to allow for a ferro-vanadium plant, for equipment?

A. A ferro-vanadium plant consists mainly of crucibles, refractory crucibles, which you can make, yourself.

Q. I understand.

A. And by that time I had sufficient knowledge about even [1304] dispensing with the crushing equipment. It was perfectly feasible, and it is perfectly feasible still today, to crush ferro-vanadium or ferro-molybdenum, incidentally, by a very sim-

(Testimony of Henry J. Leir.)

ple method, which doesn't cost a thing, so to speak. You just dump the hot metal into a tank of cold water and the material would fall to pieces.

Q. (By the Court): That's merely a difference of opinion between you and Apex as to that amount.

A. Yes. But as far as for that period of time, in 1943, of course, 1943 dollars are a little bit different from 1958 dollars. In 1943, at the time this letter was written, I think I could have started the equipment with a relatively modest outlay.

Q. (By Mr. Holland): But you did make the statement that Apex had treated the ferro department like a stepchild, in your other letter.

A. Yes.

Q. And they had spent greatly in excess of $5,000 on equipment for their ferro department.

A. Yes.

Q. Is that correct?

A. The main outlay, however, at that time, was the crushing equipment.

Mr. Holland: I think that is all of the letter I want to read. [1305]

Do you want me to read the rest of it?

Mr. Alioto: No.

Mr. Holland: That will be all.

Cross-Examination

Q. (By Mr. Archer): Mr. Leir, as I understand it from your testimony, the companies which you have owned or had a financial interest in have been engaged in the manufacturing of alloys only

(Testimony of Henry J. Leir.)

on the occasions when you had the contracts with Fredet-Kuhlmann, Apex Smelting Company, and Climax Molybdenum Company, is that correct?

A. I think that's correct, yes.

Q. I believe you testified that when you came to this country, commencing about 1939, you made several trips out to the Colorado Plateau, is that not correct?

A. After my arrival here in this country, yes.

Q. From your investigation of the Colorado Plateau, wouldn't you say it is true that anyone who had sufficient financial resources could have acquired sufficient vanadium ore-bearing bodies and constructed a vanadium plant so as to produce oxide, provided he was sure of a market?

A. Yes, definitely.

Q. At the time you terminated your contract with Apex Smelting Company, Mr. Leir, you requested of them that they [1306] not engage in the ferro-vanadium business for a specific period of time, had you not?

A. Most probably I did.

Q. Don't you recall that they did agree to that, that they wouldn't go back into the ferro-vanadium business?

A. Mr. Archer, there was a contract in existence between my French partners and Apex Smelting Company for a period of 14 years, and when such a long contract is being terminated you have, of course, to safeguard the interests of your partners. My partners in France had disclosed to Apex

(Testimony of Henry J. Leir.)

Smelting Company certain, call it recipes, call it experience, and therefore, I most probably took the step of requesting Apex not to continue this production for a certain period of time.

Q. And this French partner is the firm you call Fredet-Kuhlmann? A. Fredet-Kuhlmann.

Q. That is sometimes hyphenated, or it is hyphenated, is it not?

A. Yes, I think it is hyphenated.

Q. And you just sometimes abbreviate that, "F-K"? A. F-K.

Q. And your agreement between your French partners and Apex Smelting Company provided that your French partners wouldn't sell ferrovanadium in the United States and Canada, did it not? [1307]

Mr. Alioto: The agreement speaks for itself.

Mr. Archer: Well, you read it yesterday.

Mr. Alioto: Do you want to call it to his attention?

The Witness: I think we should look up the agreement and look up exactly what it says in this respect.

Mr. Archer: It provides, Paragraph 7—I believe it is on page 6—"The Societe"——

Q. (By Mr. Archer): Refers to Fredet-Kuhlmann? A. Fredet-Kuhlmann.

Mr. Archer: Do you want me to read it?

Mr. Alioto: Read it to him.

Q. (By Mr. Archer): "7. The Societe hereby agrees that it will not, directly or indirectly, en-

(Testimony of Henry J. Leir.)

gage in the business of producing or selling thermit process metals or alumino-thermit stainless steel or other non-ferrous metals employed in alloying steel or iron within the United States or any Territory thereof, or within the Dominion of Canada, during the term of this agreement, nor will it permit any corporation or association affiliated with it to do so."

Does that refresh your recollection on that?

A. Yes, Mr. Archer. [1308]

Q. And your French partners, Fredet-Kuhlmann, were members of the French ferro-vanadium cartel, were they not?

A. What do you understand by "cartel"?

Q. Well, let me—I will withdraw the question and put it this way:

Just prior to your coming to this country hadn't Fredet-Kuhlmann entered into an agreement with Eugene, the other ferro-vanadium manufacturer in France, whereby all Fredet-Kuhlmann's output was sold through Eugene? A. Reluctantly.

Q. But they entered into it?

A. Eugene was the more powerful one, backed up by Union Carbide and by Vanadium Corporation, so we little fellows—little even in conjunction with Fredet-Kuhlmann—had nothing but to accept the conditions of Eugene imposed upon us, and this was done—I can tell you this very clearly—against my objection, because, as you just pointed out yourself, the product was from that moment

(Testimony of Henry J. Leir.)

on sold by Eugene, and not by my company, Luxembourg.

Q. That is what I mean. But you say it was backed up by Union Carbide?

A. I told you that the preponderate position of Eugene in the French market was created by intimate relations—let us call it this way—with Union Carbide and Vanadium Corporation of America.

Q. Do you know that of your own knowledge?

A. I do.

Q. Did somebody tell you that, or were you present?

A. I have seen correspondence to that effect.

Q. Where have you seen it?

A. Right here in San Francisco.

Q. Do you have it with you?

Mr. Alioto: If you would like, I will give it to you.

A. Yes.

Mr. Alioto: I will give it to you right now. The arrangement between your company and Vanadium Corporation of America with Eugene in 1939.

Mr. Archer: Well,——

Mr. Alioto: I will give it to you.

Mr. Archer: What is the date of this?

Mr. Alioto: I will give it to you right now.

Q. (By Mr. Archer): What is the date of this? What is the date of this, Mr. Leir?

A. Between 1938 and 1942.

The Court: How is it material?

Mr. Alioto: I don't know. Mr. Archer asked for

(Testimony of Henry J. Leir.)

it, if your Honor please, and I am simply trying to accommodate him. [1310]

(Discussion between counsel.)

Mr. Archer: You mean we sold them vanadium oxide?

The Witness: Pardon me?

Q. (By Mr. Archer): You mean we sold them vanadium oxide, is that it?

A. At cheaper prices than to anybody else, yes.

Q. We sold you vanadium oxide over in France, in Belgium, did we not? We gave you a contract to sell you vanadium oxide in 1938—the Societe—S. A. des Minerais?

A. Yes. But the conditions to the other fellows which I just mentioned, to the bigger fellows, were much better than to us.

Q. It was at the same price we sold to everybody else in Europe, wasn't it?

A. The conditions to the other fellow you just mentioned in France, and whom I would call the bigger fellow, were more favorable than to us.

Q. At what price were we selling to them?

A. I think you can see it for yourself.

Q. What price were we selling to you?

A. You sold to us at, I think, between $1.30 and $1.70.

Q. It was $1.30, wasn't it?

A. Yes, but at certain moments you asked for a price of $1.70.

Q. Now, at the time you entered into your contract with [1311] the Imperial Paper and Color

(Testimony of Henry J. Leir.)

Corporation in January of 1944 did you still have an arrangement with Fredet-Kuhlmann?

A. There was no arrangement any more in existence, because by that time France was overrun by the Germany Army, and as far as I was concerned, there was no France in existence any more.

Q. Now, in January, 1944, you were negotiating with Mr. Brown, were you not, of the Imperial Paper and Color Corporation? A. Yes, sir.

Q. And you were negotiating with, also, a Mr. Johnson, in regard to the Castletown Manufacturing Company's vanadium oxide plant?

A. I remember.

Q. And at that time you made a memorandum, did you not, of some of your negotiations (handing document to the witness)?

A. (Witness examines document.)

The Court: At this time we will take a recess.

(Short recess.) [1312]

Mr. Archer: Shall I proceed, your Honor?

The Court: Yes.

Cross-Examination—(Continued)

Q. (By Mr. Archer): This plant at Castletown, Mr. Leir, had been producing vanadium oxide from flue dust, had it?

A. From flue dust, yes, Mr. Archer.

Q. It was called Johnson and Whitney, Castle Manufacturing Company, J & R——

A. Something like that, at Castletown near Albany, New York.

(Testimony of Henry J. Leir.)

Q. At that time the bank which was handling it sent you a proposed lease for the plant, you decided not to lease it because you went up and inspected the plant and were not favorably impressed with it, isn't that correct? A. Yes.

Q. Prior to that, Mr. Johnson had told you that he could buy at least 40,000 pounds a year as flue dust with 30 per cent V_2O_5 at about 60 to 65 cents a pound?

A. Yes, he made such a prediction.

Q. Do you recall when Mr. Wolf was on the stand he identified the contract you made with the North Continental or Shattuck Chemicals for their production after the termination of the Apex agreement? It was about in June of 1942?

A. Yes.

Q. Then I went up to the time with him where North Continent [1313] was ordered or actually the utility holding company was ordered to divest itself of the assets of North Continent?

A. Yes.

Q. Prior to the time North Continent was acquired by Union Mines for the Manhattan Project you discussed with the North Continent people the purchase of North Continent and Shattuck by yourself, did you not?

A. There was such a time.

Q. I have here the three letters; you may want to look at them. A. Yes.

Q. You thought that Imperial Paper and Color Corporation might be interested in that along with

(Testimony of Henry J. Leir.)

them, did you not?

A. This is what I told you the last time in New York in January, 1958, yes.

Mr. Archer: I offer these letters.

Mr. Alioto: No objection.

Mr. Archer: I offer these as defendant's exhibit next in order.

(The documents referred to were thereupon received in evidence and marked Defendant U's Exhibit 5-I.)

Mr. Archer: First is a letter from Mr. Leir to North Continent dated November 20th, 1943:

"We read in the papers about the dissolution [1314] of the North Continent Utilities Corporation.

"We would appreciate it very much indeed if you could tell us what the plans are with regard to your own firm; in other words, whether we can expect you to remain independent and sooner or later again become one of our suppliers.

"Any information you can give us will, of course, be treated confidentially."

Then another letter dated February 18th, 1944, from Mr. Leir to W. P. Hendricks, North Continent Mines, Inc., arranging a meeting.

And then on June 2nd, 1944, from Mr. Leir to North Continent Mines, Mr. Hendricks, re vanadium.

"This is to refer to our last conversation, at which time you informed us that you did not anticipate re-opening your mill.

(Testimony of Henry J. Leir.)

"As we have not heard from you since, we assume that you are still shipping crude ore.

"The pleasant relationship which we always maintained with you prompts us to submit the following:

"We would not like to see your mines and mill pass into other hands, which might perhaps be competitors of ours in the vanadium field.

"Some conversations which we had with some friends of ours lead us to think that there is a possibility of concluding a deal with you regarding your property whenever you want to dispose of it. Substantial down payments would be no obstacle, and should you wish to maintain a share in the business rather than sell outright, this too, would be acceptable.

"Will you be good enough to tell us whether you expect to re-open the mill in the not too distant future, or whether you would like to make some sort of a deal, in which case we would appreciate it if you would let us know your terms."

Q. You were also discussing the purchase of North Continent with another company at this time? A. That is right.

Q. That is Mr. Boris Mischel of the Canadian Uranium and Vanadium Company? A. Yes.

Q. Subsequently you did not finally make an offer for the North Continent Mines, did you?

A. No.

Q. The North Continent Mines had their own both oxide plant and ore resources, did they not?

(Testimony of Henry J. Leir.)

A. Yes.

Q. And actually during this period of time it [1316] was the largest supplier of vanadium oxide to both Apex Smelting Company and yourself?

A. With the exception of Blanding Mines, which at certain moments, if I remember correctly, shipped at least as much as North Continent Mines.

Q. I mean over the total period of time?

A. Yes.

Q. You recall I talked with Mr. Nisley in regard to his operations in 1943 under the toll agreement. You were in court. A. Yes.

Q. He said that originally he was only making lumps and then he did change his operations to flakes. A. Yes.

Q. These are the letters on that: one dated October 15th, 1943 from him to you, and your reply dated October 28th, 1943. They are a little difficult to read and so I have typed copies on the back if you want to look at those. If you will look at the second page, it will be a little clearer, Mr. Leir. It is the same letter. It is just typed so it is a little more legible.

A. Shall I read the whole letter? I remember those letters.

Mr. Archer: I offer these as defendant's exhibit next in order, the first being a letter of October 15th, 1943, [1317] from Mr. Nisley to Continental Ore, with the reply dated October 28th, 1943, from Mr. Leir to Frank Nisley.

(Testimony of Henry J. Leir.)

(The documents referred to were thereupon marked Defendant U's 5-J and received in evidence.)

[See Book of Exhibits.]

Mr. Archer:* Mr. Nisley states:

"Some time ago we were corresponding with you concerning the possibility of making a flake material which would be more desirable than crushed material. At the time we were extremely pressed under the Metals Reserve operation and weren't able to do anything about it, equipment being very scarce.

"A few days ago we completed a flaking machine and put it into operation. The material seems to us to be of a very desirable nature, for as far as we are concerned, it can be sacked without further treatment. If it is not fine enough for your work, we could if necessary run the thin flakes through a small set of rollers and make it somewhat finer than it is at the present time.

"We are sending you a small sample of the material we are now making.

"Concerning production we are operating under the same arrangements with M.R.C. However, we are treating somewhat lower grade ore than we used to. Our output has been running in the neighborhood of [1318] 11,000 to 12,000 lbs. of Vanadic Acid monthly. The grade of the product has been extremely good, last month's average being 87.47% V_2O_5.

"We would like to hear from you concerning

(Testimony of Henry J. Leir.)

your reaction to the flake material. I might add that we are turning out this product commercially, in fact all V_2O_5 being produced is of this nature. Perhaps this change will be of value to us both after the war."

And Mr. Leir's reply dated October 28th, 1943:

"We refer to our letter of October 25.

"Your sample has just arrived, and we really want to congratulate you on the fine job you are doing, because these flakes are just what we like best.

"From your letter of October 15, we note that you are making 11,000 to 12,000 pounds of vanadic acid per month at the present time.

"Please let us know what your situation is with regard to crude ore, that is, whether you have some of your own or whether you are dependent upon the U. S. Vanadium Corp.

"We would also like to know whether you believe that after the war you will be in a position to either operate your own mines or to buy ore from independent miners.

"The war may be over in the not too distant future, [1319] and we would like to obtain an idea as to what your situation would be at that time. There are already signs of abundance of basic ores and minerals but we are anxious to cooperate with you and keep your mill running in peacetime.

"Please let us know at the same time when your present contract with the Metals Reserve Company expires."

(Testimony of Henry J. Leir.)

Q. Mr. Nisley's reply to that has already been put in evidence, where he informed you it would expire on January 1st? A. Yes.

Q. Mr. Leir, I believe you testified at your Long Island plant you had a pebble mill or a mill of some kind where you mixed your vanadic acid or you ground it? A. Yes.

Q. The vanadium oxide, and then did you have in addition to this pebble mill something, a machine whereby you mixed it, or was this done by hand?

A. No, the pebble mill was at the same time, of course, mixing the material.

Q. That was the only mechanical equipment you had at the plant?

A. As far as I remember, yes.

Q. The reason I ask you about these accounts, I know [1320] that you are not too interested in this any more, but as I understand it, the man who really kept these books has died. A. Yes.

Q. And that you are really the only one who would be familiar with them at the present time.

A. I will cooperate with you.

Q. If you can't answer any of these questions and you want to talk to your controller about it, feel free to do so, but I will show you your furniture and fixtures account, 1943, and see if that is not the pebble mill that is referred to on February 17th (handing a book of accounts to Mr. Leir). February 17th, 1943 shows the purchase, I believe, of a pebble mill.

(Testimony of Henry J. Leir.)

A. Well, there is the amount of the pebble mill, but there is also another amount in connection with that.

Q. There are two payments.

A. There is another amount hooked up this. I think there are two figures.

Q. $454.50? A. Yes.

Q. You will notice that at the end of the year, I think you have an opening balance for 1944 or for the close of 1943 down here, you see——

A. Of $704.00.

Q. Which would indicate your pebble mill had been sold in [1321] the meantime, hadn't it? You can see it charged off over there in May on the other side. Do you see on the other side of the ledger that it is charged off on May 19th?

A. I am not quite sure.

Q. Turn to Stein Equipment Company under your asset account. Stein Equipment Company, May 19th, the same figure, $454.50, then charged off for $229.50. A. Yes.

Q. That was the date on which it was sold?

A. Yes, most probably.

Q. So you had your pebble mill at your Long Island plant for approximately then five months in 1943?

A. It is possible, Mr. Archer, that we exchanged this machine against another one.

Q. It is not shown in your asset account, is it? You will notice your asset account at the end of the

(Testimony of Henry J. Leir.)

year was down to $700, indicating that this had been cleared out.

A. Well, it would still show $700.

Q. Yes, but there is no other entry there for any other equipment, is there? Do you want to look at it again?

A. How about if this exchange of which I just spoke had taken place?

Q. Wouldn't there be another entry in your asset account for it?

A. I am not quite sure. [1322]

Mr. Alioto: I think you are speculating on books that he did not keep, admittedly.

Mr. Archer: I think it is important in this action to know just how long he had this mill at the Long Island plant. I thought you had just one piece of machinery there, but you think now you exchanged it for another?

A. I have something in my mind as having been in discussion for the exchange of machinery.

The Court: What was the total investment in your Long Island plant?

A. Very little, your Honor, very little.

Q. How much is very little?

A. I would say all told a couple of thousand dollars at that time.

Q. (By Mr. Archer): Actually, Mr. Leir, your total asset account in 1943 is only $700?

A. This refers only to furniture and fixtures. It does not refer, for instance, to the cans, and to other things which we had.

(Testimony of Henry J. Leir.)

Q. Oh, I am sorry. You mean it does not refer to—what about your investment in fixed assets, that is, not inventory and that sort of thing, but fixed assets.

A. Well, as I just said, this was probably in the neighborhood of several thousand dollars.

Q. Your furniture and equipment there was not over $700 for everything, was it? [1323]

A. No.

Q. And the only one that appeared there was, that we could identify as sure in the vanadium business was the $450 and some odd account for a pebble mill.

A. Yes, let us assume this. Go ahead.

Q. What other fixed asset did you have there in which you had an investment?

A. Our vanadium oxide, the fluorspar, ferro-silicon, and the cans, which at that time were quite expensive.

Q. I understand that, but you would not call these other items fixed assets, would you?

A. No.

Q. What I want to get at is what you had invested in the fixed assets.

A. Well, then, let us assume it was only what you call this little pebble mill.

Q. If you want me to check on it, I can show you in 1943 you bought the things that I could identify; you had some purchases of respirators.

A. You are quite right, yes.

Q. But these were of nominal amounts?

(Testimony of Henry J. Leir.)

A. Yes, but there must have been some other expense items.

Q. It may be, very well. I asked you or your counsel to check this Sulzer Bros. account. Do you remember I asked [1324] Mr. Wolf about this sale to Switzerland of the Van-Ex? A. Yes.

Q. To show whether it shows in here that it came from Electro Met?

A. The vanadium oxide?

Q. I will show you your entries in here on it.

Mr. Alioto: I think the evidence already shows it came from Electro Met. There is no question about that.

Mr. Archer: I thought there was. This is what I wanted to show. Sulzer Bros.—this is your Sulzer Bros.' account. It shows the $248 sales and it shows the purchases over here from Electro Met.

The Witness: Yes.

Q. (By the Court): Electro Met, was that a government agency?

A. Electro Met is one of the defendants in this case.

Mr. Archer: It is a subsidiary of Union Carbide.

Q. Mr. Leir, in the use of Van-Ex during this period of time, when you sold it to the steel companies for direct addition, didn't you have some objection from the steel companies because of the sodium content of the vanadium oxide?

A. I don't remember objection by steel companies to the sodium content.

(Testimony of Henry J. Leir.)

Q. You knew at this time that most vanadium oxide was made by the so-called salt roast method?

A. Yes, of course. [1325]

Q. Which leaves large sodium?

A. Yes, more or less sodium.

Q. And if you make ferro-vanadium out of it, it really doesn't make any difference how much sodium is in it, because that goes out when you make the ferro-vanadium, doesn't it, to a large extent? A. Yes.

Q. But if you make Van-Ex, there is no way to take the sodium out, is there?

A. Exactly the same thing, because in one case you make the ferro-vanadium outside of the steel furnace, and in the other case, you make it right in the steel furnace. This was exactly our idea.

Q. But the sodium is added to the furnace in the Van-Ex situation directly to the steel bath, while in the ferro-vanadium situation it has already been removed in a prior furnace, either an electric furnace or a thermit reduction.

A. I beg to differ. The sodium in the steel furnace goes into the slag, it doesn't go into the steel.

Q. All of it?

A. I would say all of it, yes.

Q. Well, isn't that one of the problems, to see that all of it goes into the slag?

A. Well, a good metallurgist knows how to make a pure steel.

Q. And one of the ways to do that is to add as few impurities as possible in your ingredients?

(Testimony of Henry J. Leir.)

A. Yes. But I wouldn't call sodium one of the, let us say, main impurities to which metallurgists, in general, object. The main impurities to which metallurgic people object are sulphur, copper, and such items, but not sodium.

Q. Well, the copper item is the item that you ran into trouble in the aluminum thermit?

A. Yes, that's why I mentioned it.

Q. That's right. And, in fact, you recall—I don't know whether you recall or not, but didn't you finally determine that the best aluminum to use was the aluminum from the Reynolds Aluminum Company, rather than even the aluminum from the Aluminum Company of America? [1327]

A. This I don't recall, but we came, I think, to the conclusion, as you just stated, the best aluminum is called virgin aluminum—in other words, pure aluminum.

Q. And during the time that Apex——

The Court: Just a moment. How is all of this material to this lawsuit?

Mr. Archer: Well, I just wanted to bring out that the aluminum was subject to allocation.

The Court: This is an interesting metallurgical clinic, but how does this affect the issues in this case?

Mr. Archer: Well, your Honor, I wanted to bring out that the aluminum, during the time of the operations at Apex, was also under allocation by the government.

(Testimony of Henry J. Leir.)

Q. (By Mr. Archer): Was it not, Mr. Leir?

A. Yes.

The Court: Well, you have asked him the question.

Q. (By Mr. Archer): I show you now, Mr. Leir, correspondence, some of which you have seen before, in 1939, with the Vitro Manufacturing Company,—some of it is by you with Vitro and some by Mr. Hirschland.

A. In '39. Do I have to read all of this?

Q. Well, who was Mr. Hirschland? [1328]

A. Mr. Hirschland was, at that time, treasurer of my company, Continental Ore Corporation.

Q. (By the Court): He was what?

A. Treasurer of my company, of Continental Ore Corporation.

Mr. Archer: Offer these as defendants' exhibit next in order.

Mr. Alioto: This is long extended correspondence back in 1939 about some controversy with respect to analysis.

Do you propose to read the entire thing in at this time?

Mr. Archer: No, just parts of it.

This was with Vitro Manufacturing Company, which was one of the large producers of vanadium oxide, and which was selling to them during this period, and I want to bring out the reason why they terminated.

Mr. Alioto: Well, we have no objection, then.

(Testimony of Henry J. Leir.)

(The exchange of correspondence referred to was marked Defendant U Exhibit 5-K in evidence.)

[See Book of Exhibits.]

Mr. Archer: This is from Mr. Leir to Vitro, in which an order is placed with Vitro for 6,000 pounds of 83 percent vanadium oxide at $1.25; two shipments, 3,000 pounds, immediately, 3,000 pounds earliest afterward (reading):

"Sampling weighing analysis by Messrs. Ledoux & Company." [1329]

The Court: What is the date of that?

Mr. Archer: July 3, 1939.

It follows with Mr. Leir's letter to Vitro, July 5, saying (reading):

"We further agree with weighing, respectively control checking of weighing by the Pittsburgh Testing Laboratory if this suits you better."

Then Mr. Hirschland — who was your treasurer——

The Witness: Yes.

Mr. Archer: ——writes to Vitro——

Q. (By Mr. Archer): I believe you had returned to Europe by this time, had you not, Mr. Leir? This is July 17, 1939. In the fall sometime I think you returned.

A. I don't think so.

Q. You don't think so?

A. I was in this country. I am pretty much econvinced I was in this country.

Q. Maybe you went out for re-entry?

(Testimony of Henry J. Leir.)

A. No. I was in this country.

Mr. Archer: Well, it is from Mr. Hirschland to Vitro (reading):

"We just received cable from our friends on the other side that they want sampling and testing done by Ledoux & Company. We assume that this is just as [1330] agreeable to you, and would only ask you to kindly confirm that your next shipment of 3,000 pounds will be sampled and tested also with regard to moisture by Messrs. Ledoux in New York."

Then Mr. Strod, the sales manager of Vitro, on July 18, writes to Mr. Hirschland (reading):

"We note that you wish to have the second lot, consisting of 3,000 pounds, now in the course of preparation, sampled and analyzed by Ledoux & Company. You are probably not aware of the fact that in order to have it sampled by Ledoux we must request that a representative comes from New York to Pittsburgh to do so. This involves considerable expense, amounting to possibly $60-$70. If it is agreeable to you to bear this expense, we will be glad to have Ledoux' representative come to Pittsburgh. It is for reason of economy that we have, in the past, had the sampling done by the Pittsburgh Testing Laboratory, and we only charged you for half of the cost of this work. This was only a matter of a few dollars.

"If your clients still insist on Ledoux sampling from now on, we will do so only if you agree to

(Testimony of Henry J. Leir.)

pay this additional expense. Otherwise, we will be obliged to cancel the order."

The next letter is from Mr. Hirschland to Vitro, [1331] in which he passes the information on to your clients.

And the next letter is from Vitro, dated August 18, 1939, and they wanted to know the information on it.

And on August 21, 1939, letter from Mr. Hirschland to Vitro (reading):

"We have your letter of August 18th, and also received a reply from Europe. We hear now from the other side that they cannot see why you do not accept Ledoux, except under additional expenses which they are not prepared to incur, particularly since differences in the analysis results are apparent, on your last shipment.

"As it seems to us under the circumstances an agreement on the basis of your letter of July 18 cannot be reached, accordingly we accept your offer to cancel the order."

And Vitro replies, on August 22, 1939 (reading):

"Under the date of July 3 you wired us, requesting a definite booking of two lots of vanadic acid, each of 3,000 pounds, and confirmed the purchase by letter on July 3. In a letter dated July 5 you also expressly agreed that the weighing and sampling could be done by the Pittsburgh Testing Laboratory. After these definite conditions of sale were mutually accepted and the two lots prepared by us, you now [1332] intend to cancel the second

(Testimony of Henry J. Leir.)

lot for what appears to us no valid or just reason.

"Frankly, we are very much disappointed over the news you have communicated at this late date as we have kept the shipment for over a month and lost a sales possibility in other directions."

Then Mr. Hirschland, on August 23, 1939, writes to Vitro saying he has communicated this to your clients in Europe.

And finally, Mr. Hirschland replies to Vitro (reading):

"Referring to our letter of August 23 we wish to advise you that we received cable today from our friends in reply to our airmail letter of August 23. They have made provision for the requirements elsewhere. We regret that an agreement on the basis of your proposal of August 22 cannot be reached, but we hope that the inconvenience caused to you and us will be made up for soon by some new business."

Q. (By Mr. Archer): Now, actually, you never purchased from Vitro after that, did you, Mr. Leir?

A. I don't remember.

(Discussion between counsel.)

Q. (By Mr. Archer): I show you Plaintiffs' Exhibit 120, Mr. Leir, which [1333] you identified yesterday. I had some questions about it, which I guess I told you. Did you find out what is included in the "Cost of sales" in that exhibit?

A. Yes.

Q. What is included?

A. We visited Mr. Kaplow, who right now is

(Testimony of Henry J. Leir.)

in the hospital, as you know, and he explained to us that in the "Cost of sales" is included not only the amount for the raw material, but the amount for labor, handling, and the ingredients.

Q. In the 1946 entry where it shows a billing, Continental Ore Company, on this Van-Ex shipment of $240—— A. Yes.

Q. ——and "Cost of sales" of $212.80——

A. Yes.

Q. ——were you able to find from the ledger where he got those figures?

A. He explained to us the difference, being, in this case, about $5.00, between the price which we paid to you, $207.80, and $212.80—in other words, $5.00.

Q. Where did he get the $5.00?

A. It was, if I correctly understood, his experience figure based upon previous much larger shipments.

Q. Then it wasn't made entirely from the books, if it was based upon some experience here, was it?

A. This I can't tell. [1334]

Q. Well, what I want to know is whether——

(Discussion between counsel.)

Q. (By Mr. Archer): The reason I am interested in this is because this is the only year where there is just one sale. A. Yes.

Q. And I wanted to see how, from your books, you could get—and the only ingredient I can see from your books, as I just showed you on that

(Testimony of Henry J. Leir.)

Sulzer Brothers, it shows an invoice on the other side from Electro Met. A. Yes.

Q. And it didn't show any other ingredients going in it.

A. But it shows on this little amount of $200 a rather large amount difference—namely, $5.00.

Q. I want to know where he got the $5.00 from the books. A. I don't know.

Q. You don't know?

A. I couldn't tell you.

Q. Now, the cost of sales, then, includes the materials and freight, and what else would it include? A. In this particular item?

Q. Now, just generally.

A. Generally, the raw material, the handling, the freight, the cans, and the ingredients. [1335]

Q. (By the Court): Labor? Is that included?

A. Labor, handling—what I would call handling.

Q. (By Mr. Archer): Well, the labor isn't in there. You don't have any entry in your books for labor.

A. Do you speak, again, of this item of $200?

Q. No; I mean for vanadium labor. You don't have any vanadium labor broken down in your books.

Do you still have the exhibit there? You see, this is related solely to vanadium. A. Yes.

Q. Now, you can pick up your vanadium costs, you can pick up your sales from your invoices,

(Testimony of Henry J. Leir.)

because you can just look at a vanadium invoice and find vanadium, can't you? A. Yes.

Q. And you can pick up your material costs, because you can look to see who the purchaser was, and you will find vanadium oxide, so that it comes right down to vanadium.

A. Yes. But the figures you see here are not only—I repeat—not only the figures for the raw material, but as well for handling, for handling, ingredients, and cans.

Q. Well, I can see "cans."

Now, let me ask—maybe this will make it clear—is there any charge for overhead in here? [1336]

A. It is possible.

Q. Do you know?

A. I wouldn't know that. I think we should ask my comptroller about it.

Q. Well, look at the next entry. Maybe this will help. It says "Gross profit." A. Yes.

Q. Well, if it is gross profit, there couldn't be any charge for overhead in "Cost of sales."

A. Certainly not.

Q. Then probably there isn't labor costs in there, either, if we are still talking about gross profit. By "labor," I mean salaries, and that sort of thing—your general expense.

A. You would have it deducted.

Q. Yes. In other words, you have a gross profit figure there from which matters such as overhead, and whatever goes into overhead, have not been deducted? A. I would say so.

(Testimony of Henry J. Leir.)

Q. Now, the next item, "Percent of gross profit to sales," is just the ratio between gross profit to your total vanadium sales? A. Yes.

Q. Now, your last entry there, it says, "Commission earned," and this is Apex billings——

A. Yes. [1337]

Q. Well, you will notice—do you recall that you had a 2½ percent commission from Apex?

A. Yes.

Q. You will see your commissions there are a little bit higher than 2½ percent.

A. It is a little bit higher, yes.

Q. Well, I think what he has put in there, I think he has put in your ferro-tungsten, or some other commissions, if you had some ferro-tungsten —Mr. Holland just put in that exhibit——

Do you have that accountant's report?

Mr. Holland: I didn't put it in. From Apex?

Mr. Archer: Yes.

Mr. Holland: Here it is, if you want it.

Mr. Archer: I have a copy here.

Q. (By Mr. Archer): This accountant's report shows a total commission of $8,480.49.

A. Eight thousand, you said?

Q. $8,480.49. A. I have $9,400.

Q. Yes. And if there were any ferro-tungsten sold under this it would be even a little bit less than that, wouldn't it?

The Court: How is this material? [1338]

Mr. Archer: I just want to establish where these

(Testimony of Henry J. Leir.)

costs came from, your Honor, so that I can check them.

Mr. Alioto: You have all the books and records.

The Court: I still don't understand how that has anything to do with our lawsuit. Try to get to the main issues.

Mr. Archer: I just have one further question, your Honor.

Q. (By Mr. Archer): Now, the "Commission earned" is, again, a gross commission, is it not?

A. A gross commission, out of which we would pay all our expenses, for traveling and advertising, and so on.

Q. Now, down at the bottom it says "Government billings."

A. This is clearly a mistake. It should have read our own billings.

Mr. Alioto: That is what I was telling you. We will get together and fix this exhibit up. But in copying Mr. Kaplow's handwriting, which wasn't very legible, it should have been "Direct billings," as distinguished from "Apex billings."

Q. (By Mr. Archer): Well, Mr. Leir, you recall yesterday you put in an exhibit showing your suppliers of vanadium oxide?

A. I think we did. [1339]

Q. Which started in 1940?

A. I think we did.

Q. And you will notice your total sales of vanadium in 1939 on this exhibit amount to $59,000?

A. Yes.

(Testimony of Henry J. Leir.)

Q. Now, in 1939 you were purchasing vanadium oxide from Electro Met, were you not?

A. Yes, indirectly.

Q. And it has your entry here of Electro Met Sales Corporation, 1939, it shows $24,990.48 purchases.

A. I am convinced that is correct, yes.

Q. You say that was indirectly, because that was through your Mr. Poliakoff? A. Yes.

Q. But actually, those were handled by Mr. Hirschland, again, were they not? A. Yes.

Q. And they were all sold to you — you will notice from your entry here that you paid Electro Metallurgical Sales directly—is it not shown here in this entry, here (indicating)?

A. I am not quite convinced we paid directly, because we bought it indirectly through a friend of Electro Met.

Q. Well, it was paid for directly to Electro Met. Doesn't it show on your books (indicating)?

A. I am not quite convinced. We might have entered it on the books, as it would be usual, as a sale from Electro Met. However, we might have sent the check to the man who was in between, between Electro Met and ourselves.

Q. At any event, Mr. Poliakoff was also a friend of yours, was he not?

A. I have reason to believe he was a greater friend of Electro Met, because he got the material which I could not get directly.

Q. Did you ask them for it in 1939?

(Testimony of Henry J. Leir.)

A. Either in 1939 or a little later.

Q. Do you recall we went over this in your deposition; your first request was in 1941, was it not?

A. If you say so, then——

Q. Well, that's the first—that was mentioned in your deposition, and you said you checked the records, and it is the first that has been put in evidence here.

A. I would like to look, really—to look into the correspondence about this point.

Q. Well, I will show you the Poliakoff correspondence. A. Yes, sir.

Q. Which was by Mr. Hirschland.

A. Yes.

Mr. Archer: I offer this as defendants' exhibit next in order. [1341]

Mr. Alioto: No objection.

(The letters referred to were thereupon marked Defendant U Exhibit 5-L in evidence.)

Mr. Archer: The first is a copy of a letter from Poliakoff—is that (referring to pronunciation)?

A. You know it as well as I do.

Q. July 26, 1939, to Electro Metallurgical Sales Corporation, Mr. T. F. O'Heir—this came from your files, Mr. Leir? A. Yes.

Q. Confirms a telephone order, 6,000 pounds vanadic acid, in drums of 180 pounds each, at $1.10.

July 28, 1939, letter from Mr. O'Heir to Mr.

(Testimony of Henry J. Leir.)

Poliakoff, just regarding delivery instructions, acknowledging the order.

And then letter dated August 28, 1939, from Continental Ore Corporation, Mr. Hirschland to Mr. Poliakoff.

"We hereby confirm for regularity's sake that we asked you to buy for our account:

"10,000 lbs. of fused Vanadic Acid for shipment:

"5,000 lbs. end of this week/early next week.

"5,000 lbs. one week later.

"Total 10,000 lbs., other conditions exactly as last.

"Please arrange shipment in steel drums of the larger type, containing about 450 lbs. net."

And those are the shipments which are indicated in your general ledger for 1939, are they not, Mr. Leir? A. Obviously.

Q. Now, you have another purchase in here which was not on the list you submitted yesterday, from the O. Hommel Company in [1343] 1941. It shows 4,288.495 pounds of vanadium oxide on July 19, 1949 (sic) at $5,000.

Do you recall your negotiations with O. Hommel & Company for vanadic acid, vanadium oxide?

A. I remember having had some dealings with them, yes.

Q. I show you a memorandum from yourself to Apex Smelting Company, dated June 21, 1941. There is some handwriting on that. Is that your handwriting?

(Testimony of Henry J. Leir.)

A. This is my handwriting, yes. It says: "Hommel, Pittsburgh."

Q. Does that refresh your recollection?

A. Yes.

Mr. Archer: I offer this as defendants' exhibit next in order.

Mr. Alioto: No objection.

(Memorandum, Continental to Apex, June 21, 1941, received in evidence as Defendant U's Exhibit 5-M.)

Mr. Archer: This is to Apex Smelting Company, dated June 21, 1941. "Re: Vanadic Acid.

"Besides the so-called fused vanadic acid (the kind you buy from Shattuck/Blanding/etc.), there is a material available which is called:

"Air-dried, or Gas-dried Vanadic Acid with a moisture content of about 1-2%.

"We can obtain about 5,000 pounds of this material every other month, i.e., about 50,000 pounds per year, [1344] perhaps even more.

"The price for this material is $1.17 f.o.b. New York (per lb. of V_2O_5 contained).

"As you see, this price is higher than that of fused material, but it can be obtained very regularly, and we think we should keep this source open for export orders in ferro.

"They sell this material only in lots of 5,000 pounds, but it so happens that we can just now sell 2500 pounds to a chemical factory, so that you would only have to take 2,500 pounds for trial.

"Please let us have your authorization to reserve

(Testimony of Henry J. Leir.)

these 2,500 pounds for you at $1.17 f.o.b. New York. This price would automatically go down to $1.17 delivered Chicago if and when you decide to buy 5,000 pound lots."

The Court: To whom was that addressed?

Mr. Archer: This is addressed from Mr. Leir to the Apex Smelting Company.

Q. Now, as I show these to you from your books, Mr. Leir, you only bought the one shipment, 5,000 pounds, from O. Hommel in 1941. A. Yes.

Q. And the reason you didn't buy more was because they were charging $1.17? A. No.

Q. That—— A. It was not the reason.

Q. What was the reason?

A. The reason was, Hommel, this outfit in Pittsburgh to which it refers, is just a dealer, a dealer in chemicals, and we became a little while later convinced that this would not be a regular supply. He was not a producer; he was just a dealer.

Q. So your statement to Apex Smelting Company that "We can obtain 5,000 pounds of this material every month, that is about 30,000 per year, perhaps even more" was incorrect?

A. At that time it was based upon actual knowledge, but there must be correspondence in our files with Hommel showing that they withdrew from these vanadium offers. And, as I just explained, they were just merchants and obtained the material from other sources.

Q. I will show you the statement of yearly sales and profit—Vanadium. Now, Mr. Leir, it is correct,

(Testimony of Henry J. Leir.)

is it not, looking at the 1939 sales, those are all of vanadium oxide, are they not?

A. Yes, I would say all oxide sales.

Mr. Alioto: That would appear, Mr. Archer, on Exhibit 119, what is vanadium oxide and what is ferro vanadium (handing to counsel).

Mr. Archer: Is this in evidence?

Mr. Alioto: Yes. It breaks it down between the oxide by year, the vanadium by year, the Van-Ex and the [1346] silicide.

Mr. Archer: I didn't realize that was in evidence.

Mr. Alioto: Yes.

Q. (By Mr. Archer): Well, from this exhibit 119, in 1939 48,000 lbs. of vanadium oxide that you sold, and 38,000 lbs. of vanadium oxide. Here, if you will want to check with the exhibit.

A. (Examining.) Yes.

Q. Now, that was all during the period of the Apex Smelting contract, was it not?

A. Yes.

Q. And this was prior — the reason it wasn't sent to Apex was that they hadn't set up their equipment yet. A. Yes, Mr. Archer.

Q. But you could have stockpiled it for Apex, couldn't you?

A. Yes. It would have been, as I say, irrational to stockpile too much in advance of an operation, but we could have done it.

Q. And most of these sales prior to July, 1940,

(Testimony of Henry J. Leir.)

were for foreign trade, directly or indirectly, one way or another, weren't they?

A. For foreign trade, yes.

Q. And the reason they stopped was because in July, 1940, the export ban went on.

A. Yes, Mr. Archer. [1347]

Q. Then I believe you testified that commencing in about September, 1941, Apex Smelting started to make ferro-vanadium? A. Yes.

Q. It was September, 1940.

A. August or September.

Q. September, 1940. A. Yes.

Q. Yes, that's what it was. September, 1940 they started to make ferro-vanadium, and in May, 1941, you made an agreement with them for your commissions and sales in the domestic market.

A. Yes.

Q. Now, on your Exhibit 120 there, which shows your yearly sales, costs and profits, you don't show any income from Apex other than commissions, do you? That would be Exhibit 120.

A. (Witness examining.) Exhibit 120 shows clearly income not only from Apex but also from independent—what you call direct sales for export.

Q. But from Apex you show only commissions earned. A. Yes.

Q. In other words, you do not show any income because of your profit-sharing agreement with Apex.

A. I don't show any income out of the profit-sharing agreement, that's correct.

(Testimony of Henry J. Leir.)

Q. And that is because there was none?

A. There was no profit. [1348]

Q. Now, you refer to this as a joint venture with Apex. Did you also share in the losses, if any, that Apex had?

A. I don't know what was stipulated, what was set up in the contract. In similar contracts I had a clause, of course, according to which I would share in profits and losses. For instance, in the case of Fredet-Kuhlmann, where I was requested to finance on, we had set up a rather elaborate contract according to which we would share in the profits and losses.

Q. But you don't know whether that was in the Apex contract?

Mr. Alioto: Doesn't the contract speak for itself?

Mr. Archer: All I was getting at——

The Witness: Yes.

Mr. Archer: ——the accountant exhibit showed that Apex had a loss and that hasn't been taken from this exhibit.

Mr. Alioto: No.

The Witness: No.

Mr. Archer: So I would assume that he did not share in the loss, that is, in the contract.

Mr. Alioto: In the contract.

Q. (By Mr. Archer): Also on Exhibit 120 the 1945 sale of ferro-vanadium by Electromet to Continental Ore was omitted, or I guess the 1945 sale is included.

A. 1945 is included; 1948 was omitted.

(Testimony of Henry J. Leir.)

Q. Yes. Our record on that shows around $74,000. A. Yes. [1349]

Q. Do you know what you sold it for? Were you able to check that?

A. Honestly not.

Q. But you are adding that to the exhibit?

Mr. Alioto: Yes. As a matter of fact, we are going to offer all the Electro Metallurgical ledger sheets so there will be no question about it, Mr. Archer.

Q. (By Mr. Archer): Mr. Leir, after September, 1940, I have here the invoices which Continental Ore made of vanadium oxide, sales of vanadium oxide to persons other than the Apex Smelting Company. A. Yes.

Q. In other words, if you will notice, I have added them up from September to December 31, 1940. You sold 28,000 lbs. of vanadium oxide to people other than Apex?

A. Starting when?

Q. You will see it starts in September, 1940.

A. Yes.

Q. And there is one sale in 1941 of 1,858 lbs. of vanadium oxide. A. Most probably.

Q. Wouldn't it have been good judgment to give this vanadium oxide to Apex?

A. Since you attach such importance to 1,858 pounds——

Q. What about the 1940? There were 28,000 pounds in 1940 [1350] after September.

A. We have gone over this yesterday and I

(Testimony of Henry J. Leir.)

think we put in evidence that at that time we were promised regular supplies, so I was not concerned at that time about getting regular supplies from others.

Q. Regular supplies of vanadium oxide?

A. Regular supplies of vanadium oxide, yes.

Q. This is in September, 1940. A. Yes.

Mr. Archer: I offer this as defendants' exhibit next in order.

Mr. Alioto: No objection. May I just take a look at the form in which they are? These are the invoices turned over by us. Do you think you have all of them related to the subject matter?

Mr. Archer: These are all from September 16, 1940, sales of vanadium oxide by Continental Ore to people other than Apex.

Mr. Alioto: We have no objection.

Mr. Archer: Just for 1940 and 1941. There are some later in 1943.

Mr. Alioto: We have no objection.

(Sales of vanadium by Continental to persons other than Apex was received in evidence as Defendant U's Exhibit 5-N.) [1351]

Q. (By Mr. Archer): Mr. Leir, maybe there is something you can help me on. Do you remember when I asked Mr. Burwell—he testified that he thought the price of ferro-vanadium at $2.70, $2.80 and $2.25 in 1938 and 1939 was too high.

A. Yes, I remember.

Q. And he said, in order that it compete with molybdenum. A. Yes.

(Testimony of Henry J. Leir.)

Q. I believe he testified it was his recollection that ferro molybdenum was selling at about $1.75 at that time.

A. He was wrong about this.

Q. It was about 95c?

A. It was 95c, yes.

Q. Incidentally, what was the price at which you sold the ferro vanadium which you did sell?

A. Between $2.70 and $2.80.

Q. Would it be just under the Electromet price or just about the same price?

A. It was under the Electromet prices.

Q. So if the price had been as Mr. Burwell suggested at $2.25, your gross profit in Exhibit 120 would have been considerably lower, at least on ferro-vanadium sales?

A. If we had to buy our raw material at a price which I call an exaggerated price, the whole conception in the vanadium industry, according to Mr. Burwell and according to myself, was wrong. Rather than to go out and do what Henry Ford did [1352] in this country to reduce drastically the prices and to increase production and consumption, you people stuck at the higher price. I am still of the opinion that today even the prices of vanadium should be much lower, and I think there is much evidence in the files by now against the objection of Apex Smelting Company I was nearly throughout the time for lower prices.

Q. But Apex objected to the lower prices, didn't they?

(Testimony of Henry J. Leir.)

A. Apex objected, yes. I know now certainly the reasons why they objected.

Q. My question to you now, Mr. Leir, is that you bought your oxide at Apex from North Continent, Nisley & Wilson, and Blanding Mines, I believe you said. A. Yes.

Q. At the price at which you bought it from them in making ferro-vanadium, if you had been selling at $2.25 instead of $2.70 or $2.80, you would have made less gross profit than is shown on Exhibit 120, would you not? A. You are right.

The Court: I think that is good mathematics.

Mr. Archer: Yes.

Mr. Alioto: If your Honor please, we would like to complete the record on certain correspondence we spoke of earlier. I do not think it is necessary to read all of it to the jury at this time in order that we might get along on it. [1353]

First of all, in connection with the interrogation of both Mr. Holland and Mr. Archer, I would like to offer a letter on the Apex matter, one dated January 13, 1942, with respect to the matter of supplies.

Another dated April 16, 1942, with respect to the matter of sales. There is correspondence on both sides of these dates, if your Honor please.

Mr. Archer: No objection.

Mr. Alioto: We will offer these in evidence, if your Honor please. We will call them to the attention of the Court and Jury at a later point and ask that they be marked as one exhibit.

(Testimony of Henry J. Leir.)

(Whereupon the letters of 1/13/42 and 4/16/42 were received in evidence as Plaintiff's Ex. 127.)

[See Book of Exhibits.]

Mr. Alioto: Your Honor recalls that Mr. Holland introduced in evidence a letter dated October 16, 1940, from Mr. Leir to the Apex Smelting Company; the answer to that letter and to the telegram that has been referred to and not put in we would like to offer as our exhibit next in order.

Mr. Holland: No objection.

Mr. Alioto: We will offer these as plaintiff's exhibit next in order.

(The documents referred to were thereupon received in evidence as Plaintiff's Exhibit 128.)

Mr. Alioto: If your Honor please, Mr. Holland [1354] offered into evidence a letter of the Apex Smelting Company in connection with the fire they had there and the projected meeting, and that letter made the suggestion that they should notify the various suppliers of raw material to stop shipments. We offer as plaintiff's exhibits next in order the reply of Mr. Leir with the direction not to stop the supply of raw materials.

Mr. Holland: No objection.

Mr. Alioto: We ask that these be marked as plaintiff's exhibit next in order.

(Whereupon the letter referred to was received in evidence as Plaintiff's Exhibit 129.)

[See Book of Exhibits.]

VOLUME IV

TRANSCRIPT OF RECORD

Supreme Court of the United States

OCTOBER TERM, 1961

No. 304

CONTINENTAL ORE COMPANY, ET AL.,
PETITIONERS,

vs.

UNION CARBIDE AND CARBON
CORPORATION, ET AL.

ON WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

PETITION FOR CERTIORARI FILED AUGUST 11, 1961
CERTIORARI GRANTED OCTOBER 23, 1961

No. 16149

United States
Court of Appeals
for the Ninth Circuit

CONTINENTAL ORE COMPANY, a Partnership, and HENRY J. LEIR, ERNA D. LEIR, LINA SCHLOSS, as Individuals and as partners under the trade name and style of CONTINENTAL ORE COMPANY,

Appellants,

vs.

UNION CARBIDE AND CARBON CORPORATION; UNITED STATES VANADIUM CORPORATION; ELECTRO METALLURGICAL COMPANY; ELECTRA METALLURGICAL SALES CORPORATION; ELECTRO METALLURGICAL COMPANY OF CANADA, LIMITED; VANADIUM CORPORATION OF AMERICA,

Appellees.

Transcript of Record

In Seven Volumes

VOLUME IV.

(Pages 1241 to 1664, inclusive)

Appeal from the United States District Court
for the Northern District of California,
Southern Division

(Testimony of Henry J. Leir.)

Mr. Holland: No objection to this, either, but it will necessitate a little recross.

(Documents received in evidence as Plaintiff's Exhibit 130.)

[See Book of Exhibits.]

Mr. Alioto: There was considerable correspondence offered by Mr. Holland between the Continental Ore Company and Blanding Mines, specifically Mr. Daniel Millicent (?) in Colorado who is also a principal in Blanding Mines. Without the necessity of reading it at this time, we will offer the balance of that correspondence for the same period of time as covered by Mr. Holland.

Mr. Holland: If your Honor please, I offered a couple of letters in 1940 and this correspondence is over a [1355] two-year period. It may be a longer——

The Court: How is that material?

Mr. Alioto: It covers the relations of this plaintiff with the Blanding Mine, if your Honor please. I assume I can go at it somewhat laboriously to show what happened to Blandings and how it was taken over by Vanadium Corporation of America so far as certain supplies were concerned.

Mr. Holland: Then we will have to show in 1944 Blandings offered him a lot of supplies and he turned them down.

Mr. Alioto: You can show anything you want.

Mr. Holland: This is coming in for the first time and it is not proper redirect examination. If we want to go into this whole Blanding picture, we

(Testimony of Henry J. Leir.)

Mr. Archer: I think your 1944 figure is wrong, too, but you can check that.

Mr. Alioto: We will check that 1944 figure as to whether it was entirely vanadium oxide. On that basis we won't try to put the books in themselves.

If your Honor please, in connection with offers to buy at an earlier period that were rejected, we will offer a series of correspondence, a group of letters between the witness and the Vanadium Corporation of America. In 1939—— [1358]

Mr. Holland: If your Honor please, this is all improper redirect evidence. This is bringing up totally different transactions that he could have gone into on direct. We could have cross-examined on them. It is complicating the picture a great deal.

Mr. Alioto: If your Honor please, these are very few letters in 1939 in connection with an attempt to get an offer of supply. There was a good deal of evidence on cross-examination about what was and what was not available in the year 1939. We want to show that there was an attempt to get a supply from the Vanadium Corporation of America in May of 1939.

The Court: This witness has testified this morning that at the time he severed his contract with Apex, that Apex could get all the material it wanted.

Mr. Alioto: As of a certain month, and under those certain conditions, if your Honor please, but we want to show the picture was actually otherwise.

(Testimony of Henry J. Leir.)

This is not a matter of impeachment. It is a matter of direct examination to show what the picture was at any given time.

The Court: Go ahead and put it in and let us get along.

Mr. Alioto: All right. If your Honor please, I will offer it as a further exhibit. It shows on its face the attempt to get vanadium oxide and what resulted in those [1359] attempts. We will offer these as plaintiff's exhibit next in order.

(Correspondence re vanadium from VCA was received in evidence as Plaintiff's Exhibit 132.)

[See Book of Exhibits.]

Redirect Examination

Q. (By Mr. Alioto): Mr. Leir, in connection with this matter of gross profit and what went into the gross profit of Van-Ex, I will show you a copy of a document. Did you have this prepared as an illustration of the gross profit on Van-Ex, showing specifically the items that went into the gross profit figures that you and Mr. Archer had discussed?

A. Yes.

Mr. Alioto: We will offer this in evidence, if your Honor please, as plaintiff's exhibit next in order.

Mr. Archer: We object to this. Just a minute.

Q. (By Mr. Alioto): In this connection, Mr. Leir, did you have it prepared on the basis of showing a price of $1.10 for the oxide and a lowered price of 80c for the oxide?

(Testimony of Henry J. Leir.)

A. I think I did, yes.

Mr. Holland: If the Court please, he started making that Van-Ex in the fall of 1941. There is no evidence whatever that anyone was getting any oxide for 80c.

Mr. Alioto: This is simply a computation, if your Honor please, alternately: First at the $1.10 and then at [1360] the 80c price. However, the evidence is clear in this case that in 1939, when the prices were $1.10, with the same prices in 1943, that the Vanadium Corporation of America procured its oxide from Electro Metallurgical at 80c.

Mr. Holland: Some at 80; some at $1.18.

Mr. Alioto: At that time the prices were the same. This is simply a compilation set up alternately. There will be a certain argument made to the jury based upon a lot of economic data already in this record. The computation is simply there for illustration as to what difference there is between the production of Van-Ex at $1.10 and at 80c.

The Court: The objection will be sustained. That is something he prepared in his own office. How would that be binding on the defendants?

Mr. Alioto: It is from an actual sale of Van-Ex to the Atlas Steels Company in August of 1942, and with respect to the questions raised by Mr. Archer, it shows exactly the elements that were taken into consideration as the cost of materials, the freight, the terms and the processing costs, including overhead, the amount set out.

The Court: How is that material in this case?

(Testimony of Henry J. Leir.)

Mr. Alioto: Because it explains, if your Honor please, the gross profit study that has already been made and under the decisions the question of gross profit is one of the elements the jury may consider on the issue of injury and [1361] damage.

The Court: The objection is sustained.

Mr. Alioto: May I have it marked for identification?

(The document referred to was marked Plaintiff's Exhibit 133 for identification.)

Mr. Alioto: I spoke to your Honor this morning about a very short offer of proof in connection with the profits of the defendant companies, that is, profits made in the vanadium business. Prior to this time the Court has rejected the offer of the combined vanadium and uranium profits made, so I assume it will follow that, but in the pre-trial proceeding Judge Harris asked that certain materials be made available in San Francisco subject to certain conditions, which, if the offer is rejected, are important to us.

We would at this time offer to prove the profits made by the Vanadium Corporation of America and the Union Carbide in the production, sale and distribution of vanadium oxide as ferro-vanadium for the years 1938 through 1949.

Mr. Holland: I object, your Honor, on the same grounds urged in our original objection, which evidence was excluded.

The Court: The objection will be sustained. There is no basis here to show that these defendants

(Testimony of Henry J. Leir.)

A. I think I did, yes.

Mr. Holland: If the Court please, he started making that Van-Ex in the fall of 1941. There is no evidence whatever that anyone was getting any oxide for 80c.

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Mr. Alioto: Because it explains, if your Honor please, the gross profit study that has already been made and under the decisions the question of gross profit is one of the elements the jury may consider on the issue of injury and [1361] damage.

The Court: The objection is sustained.

Mr. Alioto: May I have it marked for identification?

(The document referred to was marked Plaintiff's Exhibit 133 for identification.)

Mr. Alioto: I spoke to your Honor this morning about a very short offer of proof in connection with the profits of the defendant companies, that is, profits made in the vanadium business. Prior to this time the Court has rejected the offer of the combined vanadium and uranium profits made, so I assume it will follow that, but in the pre-trial proceeding Judge Harris asked that certain materials be made available in San Francisco subject to certain conditions, which, if the offer is rejected, are important to us.

We would at this time offer to prove the profits made by the Vanadium Corporation of America and the Union Carbide in the production, sale and distribution of vanadium oxide as ferro-vanadium for the years 1938 through 1949.

Mr. Holland: I object, your Honor, on the same grounds urged in our original objection, which evidence was excluded.

The Court: The objection will be sustained. There is no basis here to show that these defendants

(Testimony of Henry J. Leir.)

were operating on the same basis as the plaintiff or any other. It [1362] is wholly different from what their profit was. I do not see how that is material to this case.

Mr. Alioto: In that connection we will also offer to show, not their general profits, but their profits broken down to vanadium oxide and ferro-vanadium, and with respect to the Union Carbide and Carbon, such profits as may have been allocated between the United States Vanadium Company Electro Metallurgical Sales Company, the Electro Metallurgical Company itself, which is three separate divisions.

The Court: Objection sustained, exception allowed.

Mr. Alioto: Finally, at this time on the matter of business conditions and with respect to the industry during the period of time involved, we would like to offer the annual reports of the Vanadium Corporation of America covering the years 1938 through 1944, if it please the Court, showing the development of the vanadium industry during that period of time and the rate of growth in the vanadium industry during that period of time.

Mr. Holland: May I see one of those?

Mr. Alioto: These are your printed reports.

Mr. Archer: On behalf of the defendants Union Carbide and United States Vanadium I will object. They can't possibly bind us.

Mr. Holland: We object, your Honor. It is another way of showing the profits. [1363]

(Testimony of Henry J. Leir.)

The Court: What is this?

Mr. Holland: It is our annual report.

Mr. Alioto: Specifically, if your Honor please, this is the annual report of the Vanadium Corporation of America, which discloses from year to year the increase in sales, the matter of increase or decrease in the cost of goods sold, so that the jury may have a picture of increased costs in this industry during this period of time, the increase or decrease over the years in the selling, administrative and general expenses of that company, the net profit from operations and other charges. We think it important to show what the situation was during that period of time in connection with the increase of cost of doing business, the trend of sales and other relevant data.

The Court: The objection will be sustained.

Mr. Alioto: We have nothing further to offer while this witness is on the stand.

Mr. Holland: If the Court please, in view of the fact that the plaintiff has just put in evidence a mass of correspondence affecting this witness, we respectfully would like to defer his cross-examination until Monday morning so we can have a chance to go over it. I anticipate there will be some cross-examination. We have had no opportunity to prepare it.

The Court: Very well. [1364]

Mr. Holland: We thought all the evidence was improperly put in on redirect.

The Court: Let me ask you all a question. Is

(Testimony of Henry J. Leir.)

there any objection next week to beginning at 9:30 instead of 10:00 o'clock?

Mr. Alioto: None so far as we are concerned.

Mr. Holland: None so far as I am concerned.

The Court: How about the jury? How do they feel about it? The reason for that is this: I have been assigned here only for a limited time. I would like to get through with this lawsuit while I am here.

Mr. Alioto: We will be finished, if your Honor please, within about an hour from now.

The Court: We will just arrange, then, to begin next week at 9:30 instead of 10:00 o'clock. That will give us practically one full day more.

Mr. Alioto: May I inquire of Mr. Holland in connection with his request on cross-examination, in the event you determine before the week-end is over that you do not want the witness back for cross-examination, I take it we can have a communication in that respect as soon as you make the determination?

Mr. Holland: I will be glad to. I do not know just when we will get copies of the exhibits.

Mr. Alioto: I would have no objection, if it is [1365] all right with the Court, that the exhibits be given into your custody so there won't be any delay in the matter.

Mr. Holland: Very well.

The Court: It is a great pleasure, gentlemen, to try a lawsuit in which the attorneys are so con-

genial and cooperative as they are in this case. We will recess at this time until 9:30 Monday morning.

(Adjournment to Monday, June 16, 1958, at 9:30 o'clock a.m.) [1366]

* * * * *

LAWRENCE L. VANCE

a witness called on behalf of the plaintiff, being first duly [1371] sworn, testified as follows:

The Clerk: Will you be kind enough to give your name to the jury and the Court, please?

The Witness: Lawrence L. Vance. My address is 1465 Rancho View Drive, Lafayette, California.

Direct Examination

Q. (By Mr. Alioto): What is your present business or occupation, Dr. Vance?

A. My main occupation is Professor of Accounting at the University of California in Berkeley.

Q. Would you be good enough to give us a little bit of your background, both with respect to your studies, your experience in the field of accounting, and any writings that you may have done?

A. Yes. I took a Bachelor of Business Administration degree in accounting at the University of Minnesota in 1932, a Master of Arts degree in corporation finance at that university in 1933, and after working in public accounting with Peat, Marwick, Mitchell & Company for a period of six years I went into the teaching profession and shortly thereafter took a Ph.D. degree in economics at the University of Minnesota, which was completed in 1947.

(Testimony of Lawrence L. Vance.)

My practical experience has been first in the field of public accounting as a full-time member of the staff of the public accounting firm I mentioned; I have a CPA certificate [1372] from the States of Minnesota and California; I have taught in three universities, the University of Kansas, the University of Minnesota and at the University of California in Berkeley. My work has included additional public accounting experience in the San Francisco area; it has included research and writing on the subjects of accounting and economics, and I am the author of three books in this field, two of which apply to scientific sampling methods applied to the problems of auditing and accounting, and one is a cost accounting text. I have also done some consulting work on business problems with firms in the California area.

Q. The accounting firm you mentioned, Peat, Marwick & Mitchell, that is a national accounting firm, is it not?

A. Yes, national accounting firm with international connections.

Q. Dr. Vance, before we get down to any economic questions, I would like, first of all, to ask you whether at my request you prepared a tabular representation of the Total Domestic Production of Vanadium Oxide from 1938-1945 based upon Plaintiff's Exhibit 18 in evidence, which is a compilation prepared by the United States Vanadium Company. A. Yes, I did that.

Q. And I show you this tabular representation,

(Testimony of Lawrence L. Vance.)

Doctor. Will you be good enough to state whether or not that representation accurately sets forth the materials contained [1373] in Plaintiff's Exhibit No. 18?

A. Yes, it does, excluding that Garfield and the other production.

Q. You excluded the Garfield and Gateway production from Exhibit 20 (sic)? A. I did.

Q. And I see aside from that exclusion it represents the total domestic production broken down as to the production by the United States Vanadium Corporation and the Vanadium Corporation of America and then independents, the period of time 1938-1945. A. That is right.

Mr. Alioto: We will offer this, if your Honor please, as Plaintiff's Exhibit next in order. It is simply a graphic illustration of the materials already contained, which come from the files of the United States Vanadium Company.

Mr. Archer: Your Honor, I object to it because it is based on this chart here which I do not believe is correct. So far as I could understand at the time, the chart itself shows that parts of it are estimates and that—I believe that's in Plaintiff's Exhibit—what is the number of this——

Mr. Alioto: It is their own chart, Plaintiff's Exhibit 18.

Mr. Archer: That is the chart that was produced [1374] by Mr. Burwell and had part of it cut off down there and I never did see that part of it and I haven't been able to find it in our files. I

(Testimony of Lawrence L. Vance.)

think the chart itself shows that some of this production is estimated. I object on the ground it is without foundation.

Mr. Alioto: It couldn't possibly affect the percentage figures, if your Honor please. And the document itself is already in evidence. It was rather complicated to read, and this is a shorthand way to read it.

The Court: It can be admitted as merely the opinion of this witness.

Mr. Alioto: All right, if your Honor please.

(Chart, Total Domestic Production of Vanadium Oxide 1938-1945 received in evidence and marked Plaintiff's Exhibit No. 136.) [1375]

Q. (By Mr. Alioto): Now then, Dr. Vance, did you at my request make from the records, the evidence in this case, particularly the evidence of production of vanadium oxide submitted by the defendants in connection with interrogatories and other pre-trial discovery, did you make a chart setting forth the production of vanadium oxide by the United States Vanadium Corporation, by the Vanadium Corporation of America, and the combined total of United States Vanadium Corporation and the Vanadium Corporation of America, and finally the relationship of that combined total to the total United States domestic production?

A. I did.

Q. Is this chart which I hold in my hand the chart that you prepared from the evidence in this case? A. That is right.

(Testimony of Lawrence L. Vance.)

Mr. Archer: May we see the exhibits from which it was prepared?

Mr. Alioto: I will have to take them out. They are all figures on the production of vanadium oxide supplied by you folks.

Mr. Archer: The exhibits in evidence?

Mr. Alioto: Yes. They are part of the interrogatories, I think you will recall, Mr. Archer.

Mr. Archer: They were corrected.

Mr. Alioto: Yes, I know that. These are the ones [1376] we are talking about.

If your Honor please, I do not want to entrench upon a prior ruling of your Honor. This does cover the period from 1933 to 1945, rather than 1938 to 1945. But in a recent case in this Circuit—Moore versus Standard Oil—which I believe your Honor has read, it is stated specifically there that so far as statistics are concerned it is permissible to go back for a few years in order to show the development of the industry. However, if there is any feeling about the thing, I can very easily, I think, take out that portion, cover up that portion up to 1938.

We would like to offer the entire chart. And I will state we will not consider it in any sense as a way of getting into the subject matter because the chart, itself, is offered. But I think it shows the development in that respect. And under the authority of the Moore case I offer it.

The Court: Let it be admitted subject to the elimination of that portion prior to 1938.

(Testimony of Lawrence L. Vance.)

(The chart referred to was thereupon received in evidence and marked Plaintiff's Exhibit No. 137.)

Q. (By Mr. Alioto): Did you also at my request, Dr. Vance, prepare in chart form for the period 1938 to 1947, the ferro-vanadium production of the Electro Metallurgical Company, of the Vanadium Corporation of America, and that small production of [1377] Apex and the Continental Ore Company? A. I did that, too.

Q. And you prepared that from the documents actually in evidence in this case? A. Yes.

Q. Does this chart accurately reflect—is it an accurate reflection of those figures, Dr. Vance, to the best of your knowledge? A. It is.

Mr. Alioto: In this exhibit, if your Honor please, the figures from 1933 to 1938 are physically covered up, so we will offer the chart in this form.

The Court: Very well.

(The chart referred to was thereupon received in evidence and marked Plaintiff's Exhibit No. 138.)

Q. (By Mr. Alioto): Further, Dr. Vance, did you prepare at my request a document setting forth the growth of American business in terms of gross national product, the Federal Reserve Board index of industrial production, and in addition thereto a chart showing the monthly production of steel ingots and steel for casting for the period 1939 to 1957? A. Yes, I did.

Q. Will you be good enough to tell us the source

(Testimony of Lawrence L. Vance.)

of the figure for the national gross product? [1378]

A. That comes from the United States Department of Commerce.

Q. Is that a source that is authoritatively used by economists in connection with that work?

A. It is considered one of the most significant statistics the government provides.

Q. From what source did you secure the industrial production generally?

A. That index of general industrial production comes from the Federal Reserve Board, another well known statistical service of the government.

Q. From what source did you secure the production of steel ingots and steel for casting?

A. That also is reported by the United States Department of Commerce, which gets its figures from the American Iron & Steel Institute, an organization of the steel industry.

Q. And you regard all of those sources as reliable? A. Reliable and authoritative.

Q. And on that basis of those reliable and authoritative sources does your chart accurately reflect the figures it purports to set out?

A. In my opinion it does.

Mr. Alioto: We will offer this in evidence as plaintiff's exhibit next in order.

Mr. Holland: To which we object, your Honor. [1379] This is a graphic illustration of evidence your Honor has already ruled inadmissible in the case.

Mr. Alioto: I do not think that is quite true.

(Testimony of Lawrence L. Vance.)

Mr. Holland: It is the same type of evidence. It is evidence of trying to relate this defendant's business——

The Court: The objection is sustained. He is covering territory there that is not involved in this lawsuit. In other words, it is bordering on the speculative.

Mr. Alioto: May I offer this solely—and we can revise it—with respect to the steel production figures for the period of time shown? I think there is certainly a lot of evidence in this record that the vanadium market is certainly related to the steel market, and I would like to offer the steel production figures.

Mr. Holland: To which we object on the same ground.

The Court: Objection sustained.

Q. (By Mr. Alioto): Finally, Dr. Vance, did you prepare at my request a graphic representation of vanadium sold by the defendants and by the Continental Ore group for the period 1939 to 1949?

A. I did.

Q. From the evidence in this case?

A. I did.

Q. In that connection, Dr. Vance, did you also set out [1380] with a blue line the figure of ten percent of the amount sold by the defendants?

A. Yes, I did.

Q. And that you did at my request?

A. That is right.

Mr. Holland: We do not object to any portion

(Testimony of Lawrence L. Vance.)

of that twelve percent figure, your Honor, but I do not see any basis for showing what ten percent of our production was.

Mr. Alioto: The ten percent figure, if your Honor please, I think we will argue later on that from the evidence in this case the jury would be justified in taking the ten percent, but as of this point it is simply a visual presentation of what ten percent would be in relation——

The Court: Briefly, what is your exhibit? I did not get the first part of your statement.

Mr. Alioto: The green line, the amount sold by the Continental Ore Company, and the blue line shows arbitrarily the figure of ten percent.

The Court: Objection sustained.

Mr. Alioto: To the entire exhibit?

The Court: To the entire exhibit. Exception allowed.

Mr. Alioto: If your Honor please, I would like to show those documents [illegible] re admitted to the jury very hurriedly. [1381]

(Exhibiting charts to the jury.) This is the first chart, which purports to set forth the total domestic production of vanadium oxide from 1938 to 1945. The heavy blue line is the production of United States Vanadium Corporation, which is the Union Carbide subsidiary, of course. The second, the light blue line, shows the production, the domestic production, of vanadium oxide, of the Vanadium Corporation of America. Finally, the green line shows other production.

(Testimony of Lawrence L. Vance.)

Those percentages, the combined percentage of U. S. Vanadium Corporation and the Vanadium Corporation of America for the period 1938 to 1945, is 93 percent; 77.2 for the United States Vanadium Corporation, and 15.8 for the Vanadium Corporation of America. And the period involved is 1938 to 1945.

The second chart, that portion of it that has been admitted, shows from 1938 on, the top red line; the lighter red line is the total United States domestic production. Then the bright red line is the total production of the two defendants in relation to the total United States production of vanadium oxide. And this line has the production of the Vanadium Corporation of America, and this line is the production of the United States Vanadium Corporation. There is the combined production. And that is the total U. S. production from 1938 to 1945.

Finally, with respect to ferro-vanadium production [1382] from 1938 to 1947, the ferro-vanadium production, the blue line is the production of Vanadium Corporation of America, the black line is the production of the Electro Metallurgical Company, the Union Carbide affiliate, and the green line is the production of the Continental Ore and the Apex group, that being the total production of ferro-vanadium for the period of time 1938 to 1947. And the total of that production shows 95 percent of the production for the two defendants—no, it is 99½ percent for the two defendants, and ½ percent for the Continental Ore group, during this period.

(Testimony of Lawrence L. Vance.)

It shows for the years 1938, 1939, 1945, 1946, and 1947, the two defendants were the only producers of ferro-vanadium.

Q. (By Mr. Alioto): Dr. Vance, did you, at my request, prepare a table of figures that sets forth the pounds of vanadium sold by the Continental Ore Company in 1941? A. I did.

Q. The year of the Apex Company.

Then the pounds sold by the defendants in the same year? A. Yes.

Q. And did you then set out the percentage of the Continental Ore sales to the defendants for the year 1941? A. I did. [1383]

Q. Did you thereafter take that percentage for the year 1941, that actual percentage, and apply it to the sales by the defendants for the rest of the years, 1942 to 1949? A. Yes.

Q. And deduct therefrom the actual sales made by the Continental Ore group? A. Yes.

Q. Did you thereafter take that table and multiply it by the gross profit of 12 percent that is disclosed in one of the exhibits here?

A. Yes, I did.

Mr. Alioto: We will offer this document in evidence, if your Honor please. It is a simple tabulation predicated upon the formula given by Dr. Vance.

Mr. Holland: To which we object, your Honor, for the same reason we have objected to all this type of evidence.

The Court: Objection sustained.

(Testimony of Lawrence L. Vance.)

Mr. Alioto: May we have this marked for identification, if your Honor please?

The Court: Yes.

(The tabulation referred to was thereupon marked Plaintiffs' Exhibit No. 139 for identification.)

Mr. Alioto: Since this was predicated in part, if your Honor please, upon an exhibit about which there was some question as to whether we had included the 1948 sales, we have [1384] done it up temporarily, and we would like to substitute a typed copy when we have fully agreed upon the exhibit about which there was some question in connection with 1948.

May I have this marked for identification?

(The tabulation referred to was thereupon marked Plaintiffs' Exhibit No. 140 for identification.)

Q. (By Mr. Alioto): Dr. Vance, did you, at my request, take the Apex capacity in 1941 as testified to by Mr. Leir—that is, 1,600 pounds per day, on the basis of a five-day week in 1941, and arrive at the production capacity of the Apex Smelting Company in 1941? A. I did.

Q. And that production capacity was 416,000 pounds per year based upon that figure?

A. Yes.

Q. Did you thereafter take the percentage which that capacity bore to the sales of the defendants in the year 1941? A. I did.

Q. Did you thereafter apply that percentage for

(Testimony of Lawrence L. Vance.)

each year from 1941 through 1949 and set out in tabular form what 12 percent, on a 12 percent gross profit basis, what that would realize in sales to the Continental Ore Company on that basis?

A. Yes, I did. [1385]

Q. And is Plaintiffs' Exhibit 140 for identification your tabular presentation of those facts?

A. That is correct.

Q. To the best of your knowledge are the figures set out in Plaintiffs' Exhibit 140 for identification accurate in accordance with the formula we just discussed? A. In my opinion they are.

Mr. Alioto: We will offer this in evidence, if your Honor please.

Mr. Holland: I object on the same ground.

The Court: Objection sustained. Too speculative.

(The tabulation referred to was thereupon marked Plaintiffs' Exhibit No. 141 for identification.)

Q. (By Mr. Alioto): Finally, Dr. Vance, did you, at my request, set out in tabular form for the years 1939 through 1949 various computations for each percentage of the industry from one percent to fifteen percent—that is, one percent, two percent, three percent, and four percent — various tabulations as to what one percent of the industry constitutes, taking that as an example, for each of the years 1939 to 1949 separately, and then ultimately multiplying that on the basis of twelve percent of the gross profit, so that we have for each year what

(Testimony of Lawrence L. Vance.)

each percentage is for each year, and then for all the years, a total for each percentage? [1386]

A. Yes, I did that.

Q. Is Plaintiffs' Exhibit 141 for identification that table? A. That is that table.

Mr. Alioto: If your Honor please, we offer this document on a little different theory than we offered the two documents preceding. This purports to be nothing more than a mathematical table, like a multiplication table, and if at some other point we argue, for example, that the evidence in the case properly analyzed in the light of the law discloses that the plaintiff should have two percent, that he was damaged by his not having two percent of the industry, or three percent of the industry, all the way up to fifteen, this table makes a mathematical computation based upon the gross profit study already put in, and nothing more than that. So it does not purport to be a tabulation of damages, but an alternate tabulation, a table for each of the years, on the basis of one percent through fifteen percent, a sliding scale for each of the years. On that basis we submit it should be admitted, so that we can make an argument based upon that, and the argument is accepted, the table will be before the members of the jury. We will offer it in evidence on that ground.

Mr. Holland: To which we object, your Honor.

The Court: Objection sustained.

Mr. Alioto: That offer was of Plaintiffs' Exhibit [1387] 141 for identification.

(Testimony of Lawrence L. Vance.)

In view of your Honor's rulings on these exhibits, I assume I know what your ruling will be on the question which I wish now to propound, but I would like to make a record of the question to this extent.

The Court: Very well.

Q. (By Mr. Alioto): Dr. Vance, you have made a study, have you not, of general business conditions as reflected by the national gross profit, the Federal Reserve Board index of industrial production and steel production for the years 1939 through 1949? A. I have.

Q. And you have been shown the figures in evidence as to the production and sales of the defendant companies, and you have been shown the figures in evidence as to the sales made by the Continental Ore Company? A. Yes.

Q. And you have had an opportunity, have you not, to compare the total percentage of the defendants' production and sales to the industry as reflected by the exhibits that have been admitted into evidence in connection with ferro-vanadium?

A. Yes.

Q. And vanadium oxide. And you have had an opportunity, have you not, to study the books and records of the plaintiff company to acquaint yourself with the managerial skill of the [1388] plaintiff company over a long series of years?

A. That is right.

Q. And you have had an opportunity to study the vanadium industry as it is reflected in, or at

(Testimony of Lawrence L. Vance.)

least you have seen the Bureau of Mines reports on the vanadium industry over a long series of years? A. I have.

Q. On the basis of that information do you have an opinion as to what the Continental Ore Company would have sold in a free market in the period 1939 to 1949? A. Yes, I have.

Q. And what is that opinion?

Mr. Holland: We object, your Honor.

The Court: Objection sustained.

Mr. Alioto: We have no further questions.

Mr. Archer: I would like to ask one or two questions on some of these charts.

Cross Examination

Q. (By Mr. Archer): Dr. Vance, referring to Plaintiffs' Exhibit 136, total domestic production of vanadium oxide, do you have any independent knowledge of how much vanadium oxide was produced during the period 1938 to 1945?

A. Independent knowledge?

Q. Knowledge of your own. [1389]

A. I used the information in the case, rather than trying to get outside information, considering this more germane to the topic.

Q. But you have no experience, yourself, in the vanadium industry?

A. I never worked in the vanadium industry, but I can read the materials as well as any other economist, I presume. [1390]

Q. Why, I presume so. I am not questioning

(Testimony of Lawrence L. Vance.)

that. I was just asking your experience in the vanadium industry.

A. I have no specialized experience in that industry.

Q. What companies did you include for the year 1938? A. I will have to look at my notes.

Q. Do you have your working papers there?

A. I think so. (Examining documents.) I have the U. S. Vanadium Corporation 875,695 pounds——

Q. Just the companies. I don't doubt the accuracy of your figures.

A. Excluding the Gateway Alloys and Garfield Corporation——

Q. Do you have—pardon me.

A. Pardon me. Mammoth St. Anthony lead vanadate production is in there; Vitro Chemical Company production is in there; Blanding production was not present in that year because none was reported.

Q. What about the North Continent Mines and the Shattuck Chemical Company?

A. Let me find North Continent Mines (examining documents.) North Continent Mines, there was no data available in that year. I have——

Q. You mean, there was no data in evidence in this case available for North Continent Mines in 1938? A. Not on my exhibit.

Q. When is the first year for which you included North [1391] Continent Mines in your exhibit?

A. There was data available on that company in 1935.

(Testimony of Lawrence L. Vance.)

Q. Well, after '38.

A. After '38 (examining documents). 1942.

Q. I believe you stated that you were familiar with the plaintiff's books in this case.

A. I had access to their records in connection with various matters, but did not use them in connection with this material obviously because it involves chiefly the production of other concerns.

Q. Well, it also shows their purchases from North Continent, doesn't it?

A. I have not gone into that detail in the books, but used only the exhibit presented in the case.

Q. Well, haven't the plaintiffs introduced in this case evidence of their purchases from North Continent in 1941? A. I don't know.

Q. You don't know whether they have or not?

A. No.

Q. If they had, you would have put it into your chart, I take it?

A. I would have put in whatever was produced by North Continent in that period if I had data on it.

Q. But you have no entries for North Continent prior to the year 19—what? Your first year is '42?

A. And I have data for '35 also.

Q. Yes. And the reason you didn't is because on Mr. Burwell's chart he noted down "No data available for North Continent" in those years.

A. That's correct.

Q. Now, it is also in evidence in this case that the Castletown Manufacturing Company or John-

(Testimony of Lawrence L. Vance.)

son and Whitney produced vanadium oxide during the period 1938 to 1945. Do you have them on your chart?

A. Will you give me the names again, please?

Q. You might have it under one of three names, Castletown Manufacturing Company, Johnson and Whitney, or J. H. R. Products.

A. I do not see those names on my chart.

Q. So then you haven't included them in Plaintiffs' Exhibit 136?

A. I have only what is in this chart.

Q. It is also in evidence in this case that Natural Products Refining Company and the Imperial Paper and Color Corporation produced vanadium oxide, and I take it you don't have them on your chart, either. A. I don't recall those.

Mr. Archer: Well, your Honor, I would like to move to strike Plaintiffs' Exhibit 136 because it is clear the witness himself has no personal knowledge of the exhibit [1393] and that he has omitted from the exhibit production of certain companies, evidence of which is already in the case, so I think the foundation is incorrect.

Mr. Alioto: Submit, if your Honor please——

The Court: It is clear that he didn't include those, as disclosed by your cross examination.

Mr. Alioto: And this doesn't purport to be anything but a visual presentation of an exhibit already in evidence produced by a former director of the United States Vanadium Company.

The Court: Overruled.

(Testimony of Lawrence L. Vance.)

Q. (By Mr. Archer): Oh, you don't have the O. Hommel and Company in there, either, do you?

A. I don't recall that.

Q. No, it is not on the exhibit.

Mr. Alioto: We will stipulate it is not on the exhibit, Mr. Archer, and, therefore, not in that chart.

Q. (By Mr. Archer): One other point: Did you make a check from the plaintiff's books to determine where they had purchased vanadium oxide in order to prepare this exhibit? A. I did not.

Mr. Archer: That is all.

Mr. Holland: No cross examination. [1394]

Redirect Examination

Q. (By Mr. Alioto): Just so there won't be any question about it, Doctor Vance, I think it is fairly clear but the only thing you did in connection with the exhibit, which is 136, is to make a presentation of whatever was on the document produced by Mr. Burwell?

A. Yes, that is a graphic presentation.

Q. Nothing more? A. That's correct.

Mr. Archer: You did use one other exhibit, too, besides the one produced by Mr. Burwell?

A. I don't recall any other information here and I am sure there was none.

Mr. Alioto: That was in connection with the ferro-vanadium.

(Testimony of Lawrence L. Vance.)

Mr. Archer: Oh, ferro-vanadium.

Mr. Alioto: But on the vanadium oxide it is just a visual presentation of that exhibit. [1395]

* * * * *

WILLIAM R. BAYER

called as a witness by and on behalf of the defendants, having been first duly sworn to tell the truth, the whole truth and nothing but the truth, testified as follows:

The Clerk: Will you be good enough to give the Court and Jury your full name?

The Witness: William R. Bayer.

Direct Examination

Q. (By Mr. Holland): Will you state your address, Mr. Bayer?

A. 5104 North Drake Avenue, Chicago 25, Illinois.

Q. What is your occupation, Mr. Bayer? [1400]

A. I am an officer of the Apex Smelting Company.

Q. How long have you been associated with the Apex Company? A. Since June 28, 1937.

Q. Will you please state for the record the various positions you have held with that company during the period since you first went with it, and the dates when you changed your various positions?

A. Well, I started out as accountant and office manager. In 1941 I received the official title of as-

(Testimony of William R. Bayer.)

sistant secretary. In 1948 I became secretary, and in 1956, secretary-treasurer.

Q. Which position you still hold?

A. Still hold. And generally my work is classified as controller — throughout most of the entire period.

Q. During the period July 1, 1938 until December of 1942, who were the men actively in charge at the Apex Smelting Company and what were their positions?

A. Mr. W. A. Singer was president of the company; Mr. Louis Lippa was vice-president and secretary, and Mr. George H. Starmann was treasurer. I was going to say——

Q. Pardon me?

A. That was in 1938. Subsequently, in the years, I think 1940, Mr. Fritz Nussbaum, became a vice-president, and approximately at that time Mr. Edward H. Christianson became a vice-president in charge of sales. [1401]

Q. During that period of time, was there a committee or a group which supervised the operations of the company, other than sales?

A. Yes, there was.

Q. And who formed that group?

A. Mr. Singer, Mr. Lippa and myself.

Q. And did you hold meetings frequently?

A. Practically every day.

Q. Would these be informal meetings or would there be minutes kept of these minutes?

A. Informal.

(Testimony of William R. Bayer.)

Q. And what in relation to the operating policies of the company was taken up at these meetings?

A. Well, I would say every problem or decision in relation to the general operations of the company and, in many instances, the detail of the operations.

Q. And did that apply to the operations of the company's ferro-alloys department?

A. It did.

Q. And did it apply to the relations of the company with Continental Ore and Mr. Leir?

A. It did.

Q. Did you participate in the drawing of the original agreement dated July 1, 1938, between Apex Company and Brignoud, which is in evidence in this case? [1402] A. Yes.

Q. And did you participate in the drawing and final form of the various amendments to that agreement which took place thereafter?

A. I did.

Q. Did you form a part of the group which discussed and took up the company's policy in relation to the termination of that agreement?

A. I did.

Q. Now, under the agreement with Brignoud, Apex undertook to install a ferro-vanadium department, is that correct? A. That is correct.

Q. And was that department installed?

A. Yes.

Q. At whose expense? A. At Apex's.

(Testimony of William R. Bayer.)

Q. Do you recall approximately what the cost was of that installation? A. I do not.

Q. When did that department first go into commercial operation, if you recall?

A. I believe in 1940.

Q. Do you recall when in 1940?

A. If I could refresh my memory——

Q. Certainly. [1403]

A. I have (examining documents) April 19—we made our first commercial heat on April 19, 1940.

Q. Mr. Bayer, there is evidence in this case that in August of 1940 Mr. Leir of Continental Ore advocated the resale by Continental Ore of 20,000 pounds of oxide then under order and expected to be received from Blanding Mines Company. Will you state what the policy of Apex Smelting Company was in respect to the resales of oxide as opposed to stockpiling them for ferro-vanadium production?

A. Well, I would say this, our general policy was to match sales and purchases in all of our metal operations, to attempt to keep as near as possible a balanced position where we were not materially, in relation to sales, either long or short.

Q. Then it was not your policy to stockpile vanadium oxide as against future needs for ferro-vanadium production, is that correct?

A. You say "against future needs"?

Q. Of the oxide.

(Testimony of William R. Bayer.)

A. Will you give me an interpretation of the word "needs"?

Q. Future possible shortages of material for the ferro-vanadium production.

A. I would say it was not our method of operation.

Q. And you did not so operate in connection with your ferro-vanadium production, is that correct? [1404] A. That is correct.

The Court: Just a moment. I don't understand just what was that policy. Did you buy more than you actually used at the time in preparation for future needs, or did you limit your purchases to just what you needed?

A. We would limit our purchases not pound for pound but approximately to what we had definitely sold for the future, trying to keep an even position.

The Court: I understand.

Q. (By Mr. Holland): Now, what was the policy of the Apex Company with respect to financing or helping to finance vanadium oxide mills in the West?

A. We had no policy of either financing or helping to finance vanadium mills.

Q. You were requested on several occasions were you not, to help finance the mills of your suppliers of vanadium oxide? A. We were.

Q. Specifically, Blanding and Morrison?

A. I believe so.

Q. And what did you do with respect to those requests for financing?

(Testimony of William R. Bayer.)

A. We turned them down.

Q. The evidence shows that you also received several requests by suppliers of oxide for contracts under which Apex would agree to take a fixed quantity of oxide over an extended [1405] period of time. Will you state what your policy was in respect to such contracts?

A. Our policy was not to make such contracts. However, we did offer—it all depends what the extended period of time was—. In reviewing my files before I came here, I noted that we did make an offer for a long-term contract subject to quarter review, both as to quantity, price and duration.

Q. In other words, your agreements to take a fixed quantity over a period were limited to a period of three months, is that correct?

A. That is correct, as far as my memory and record shows.

Q. And you were requested on several occasions by suppliers to give them long-term contracts to take a fixed quantity, is that correct?

A. I believe so.

Q. And is it correct to say that you refused such requests? A. That is correct.

Q. Will you state, generally speaking, during the period from April 1940 until the end of 1941 what your situation was with respect to supplies of vanadium oxide?

A. I don't quite get your question.

Q. In other words, during that period of approximately a year and a half, did you have a suffi-

(Testimony of William R. Bayer.)

cient supply of oxide [1406] coming in for your operations in the ferro-vanadium department?

A. To the best of my belief at times we had and there were some short periods where we did not.

Q. Now, those short periods where you did not, occurred, did they not, in the summer and fall of 1941?

A. I would have to—I wouldn't be positive of that.

Q. Can you check any records you have and answer that. A. (Witness examining.) [1407]

A. Yes, I believe so. I have a letter here of June 3rd wherein——

The Court: What year?

The Witness: June 3, 1941, which discusses some problems that Shattuck had at the mill and the quantities were cut from what they had been shipping.

Q. (By Mr. Holland): Can you tell from your records whether at any time your oxide supplies would not have been completely remedied as far as your manufacturing requirements were concerned if you had maintained, say, a one month's supply of oxide on the stockpile?

A. No, I can't. As far as I know, from my records, if we had had that stockpile we would have probably been in good shape.

Q. There has been some evidence introduced in the case that you had difficulty securing aluminum during the latter part of 1941; let us say the last half of 1941, is that correct?

(Testimony of William R. Bayer.)

A. That is correct.

Q. I hand you a letter from Mr. Lippa to Continental Ore Corporation and ask you if you can identify that. That is your copy of the letter.

A. It appears, as far as I can tell, that this letter is from our files. It is our file copy.

Mr. Alioto: We have no objection. It is the witness writing a letter, but we have no objection.

Mr. Holland: I offer in evidence as exhibit next [1408] in order a letter of June 27, 1941, from Apex Smelting Company to Continental Ore Corporation.

(The document referred to was thereupon received in evidence and marked Defendant *D*'s Exhibit V-2.)

Mr. Holland: The letter reads as follows:

"We wish to call your attention to the critical aluminum condition as it affects our ferro department. We have not had any success in securing aluminum from the aluminum companies of America, based on the few priorities which you sent to us, and all the aluminum we have used so far has been such aluminum as we could gather from other concerns and from our own stocks.

"When Mr. Singer was in Washington recently he took this matter up with the Priority Division there, at which time he attempted to get an A rating for the Thermit process. The impression that he got from them was that the concerns now purchasing low carbon alloys would have to take the high carbon alloys. This, of course, is not a final decision,

(Testimony of William R. Bayer.)

but it gives you an idea of the trend of thought regarding this, and we feel that possibly it might be wise if you would have a statement written for us giving the reasons why the high carbon will not take [1409] the place of low carbon.

"It would be well if you could secure statements from the people to whom you are selling ferrovanadium to this effect. It is quite possible that if our present requests are denied that we may need all of this information to substantiate our claims. Any suggestions you may have along these lines will, of course, be very much appreciated."

Q. Mr. Bayer, commencing with December 31, 1941, do you have inventory figures which show the stocks of vanadium oxide that you had on hand on that date and from that time on?

A. I have some.

Q. Have you reviewed those figures recently?

A. I have.

Q. Do those figures or do they not show that for the end of the year 1941 and on January 31, 1942, and February 28, 1942, the Apex Smelting Company had ample stocks of both oxide and finished product to take care of all outstanding orders?

A. They had.

Mr. Alioto: The documents speak for themselves, if your Honor please.

Mr. Holland: Rather than to get all the figures in, I am attempting to do it this way. I will put the figures in if you wish.

(Testimony of William R. Bayer.)

The Court: He may refresh his memory from the [1410] documents.

Mr. Holland: You can cross-examine on it if you wish to.

Q. Before we leave the aluminum situation, at the time you made the contract on July 1, 1938, what type of aluminum was it you anticipated you would use in the production of ferro-vanadium?

A. It was anticipated that we would be able to use the aluminum which we essentially produced—which we produced essentially from scrap aluminum and which is not a very—is not a high purity aluminum and has certain impurities such as copper, magnesium, silicon and zinc.

Q. Were you able to use that type of aluminum in the manufacture of your ferro-vanadium?

A. It was not acceptable. The resultant ferro-vanadium was not acceptable with that type of aluminum because of the copper content.

Q. What type of aluminum did you have to go to?

A. To a high purity aluminum of 99 plus or better.

Q. Is that what is known as primary aluminum?

A. Well, essentially that. In other words, that grade could be secondary but was not readily available in the scrap, and the only readily available supply was from primary production.

Q. And was it the primary aluminum that you had difficulty [1411] getting priorities for?

A. That is correct.

(Testimony of William R. Bayer.)

Q. Was that also more expensive than the secondary aluminum which you produced or was it not?

A. Under price controls at certain times, yes. At times secondary aluminum prior to price controls—and I am not sure of the dates in the various pricing orders, was selling at a much higher figure than primary aluminum, but during most of that period we were under price controls where secondary aluminum was selling at prices under primary.

Q. I believe shortly before October 25, 1941, you had a fire in the ferro-alloy plant, is that correct?

A. That is correct.

Q. At that time you notified the Continental Ore Company, did you not, of the fire and the fact that you wished to terminate your ferro-alloy manufacture? A. That is correct.

Q. I believe shortly after that Mr. Leir came to Chicago on November 1st and 2nd, 1942, and at that time you agreed to go ahead with the production of the Van-Ex, did you not? A. That is correct.

Q. Pending the rehabilitation of your ferro-alloy department? A. Right.

Q. At the time that you went into the Van-Ex production [1412] what was your understanding as to what that production would be?

A. Well, that it would be packaged — I don't know if I am using the right technical word—thermit or exothermit product. In other words, that would contain ferro-vanadium and aluminum so

(Testimony of William R. Bayer.)

that it could, when charged into the steel furnace, would give a thermit reaction.

Q. What did that Van-Ex production turn out to be?

A. A straight packaging of vanadium pentoxide.

Q. (By the Court): What is the difference between pentoxide and oxide?

Mr. Holland: I do not think this witness is qualified.

The Witness: I am not a metallurgist. Isn't pentoxide the correct terminology for V_2O_5?

Q. (By the Court): You are using the terms pentoxide and oxide. I would like to know the difference. A. It is V_2O_5

Mr. Holland: They have been used interchangeably in the case, your Honor, and they mean the same thing. The pentoxide vanadium I think Mr. Alioto will agree is what all the witnesses have referred to as both pentoxide and oxide, is that not correct?

Mr. Alioto: There has been a reference by those witnesses to it, but I was interested in this witness' answer.

The Court: I did not hear what you said.

Mr. Alioto: I have indicated, as Mr. Holland has, that the witnesses have referred to those terms interchangeably, but I wanted to know what this witness had to say about it.

The Witness: It is the term we called it back in those days. I think the "pent" refers to O_5, the fact that it has five parts of oxygen.

(Testimony of William R. Bayer.)

Q. (By Mr. Holland): Mr. Bayer, there is in evidence a wire dated January 27, 1942, from Apex Smelting Company to Continental Ore reading as follows:

"In view of continued losses in our ferro department and the increasing difficulty in securing men to work in that department due to its hazardous nature, we are compelled to advise you that we are forced to discontinue this department. Will do our utmost to fill present orders subject to approval from Washington."

Do you recall the sending of that wire?

A. I do.

Q. Was that the result of a decision made by this operating committee of whom you have referred? A. It was.

Q. Was that the first notice to Continental Ore so far as you know of the desire of Apex Smelting Company to terminate its contract?

A. No, there was that notice in October of 1941.

Q. But I mean subsequent to that, which as I understand you agreed to go ahead with that notice.

A. That is right; I believe so.

Q. Then on the 13th of February, in evidence as Defendant's Exhibit V-1Z, there was a further wire sent to Apex, I mean by Apex to Continental, "cannot see our way to continue production ferro department beyond March 10. We are stopping all shipment of ore." Do you recall the sending of that wire? A. That is right, I do.

Q. Do you recall whether or not you notified

(Testimony of William R. Bayer.)

your shippers of ore to cease shipping ore at or about that time?

A. Upon refreshing my memory I find I did.

Q. I hand you a copy of a letter signed by yourself dated February 14, 1942, to North Continent Mines, and ask you if you can identify that.

A. That appears to be a file copy of a letter that I dictated and signed.

Mr. Alioto: We have no objection.

Mr. Holland: I offer it in evidence as Defendant's Exhibit next in order.

(The document referred to was thereupon received in evidence and marked Defendant V Exhibit 2-E.)

Mr. Holland: This is a letter dated February 14, 1942, one day after the wire I just read, directed to North [1415] Continent Mines, Inc., from the Apex Smelting Company and signed by William R. Bayer:

"We would greatly appreciate if you will refrain from making any shipments of vanadic acid to our plant until further notice.

"This is in accordance with your telephone conversations with our Mr. Lippa."

Mr. Alioto: May I have that date again, Mr. Holland?

Mr. Holland: February 14, 1942.

Q. Mr. Bayer, at the time the decision was made by Apex of its desire to terminate its contract and to cease the operation of its ferro department, which I believe you testified was first sent to Conti-

(Testimony of William R. Bayer.)

nental Ore on January 27th, at that time who participated in the making of that decision?

A. As far as I can remember, it would be essentially Messrs. Singer, Lippa, Starmann, Nussbaum and myself.

Q. Would Mr. Christianson have participated in any such meeting? A. Not generally.

Q. Why not?

A. His function was essentially sales.

Q. Did you or do you know of anyone at the Apex Company who had any communication whatever with Vanadium Corporation of America prior to the time that decision was made regarding your [1416] decision to go out of business?

A. Not that I know of.

Q. Did you have any such contacts yourself?

A. Definitely not.

Q. And if there had been any consultation with Vanadium Corporation of America on that subject would you have known about it?

A. I would have.

Q. Now, there is in evidence on February 20th a memorandum written by Mr. Gustaf Laub.

The Court: What year?

Mr. Holland: 1942, being a week after your second wire to Continental Ore, which indicates that he was called upon by Mr. Christianson, who wanted to sell Vanadium Corporation of America the equipment and materials which you had in your ferro-alloy department and communicated to Mr. Laub at the time that Apex had decided to go out of

(Testimony of William R. Bayer.)

the business and wanted to sell these materials and equipment to Vanadium Corporation of America. Do you recall anything in connection with that visit of Mr. Christianson to Vanadium Corporation of America?

A. I do not, other than what I have refreshed my memory of in the last few days.

Q. And as a result of refreshing your memory what is your recollection?

A. As a result of refreshing my memory——

Mr. Alioto: May we find what he has refreshed his memory from, if your Honor please?

The Court: I didn't hear you.

Mr. Alioto: I am requesting that he find out what it is he refreshed his memory from. He says he doesn't remember. He saw something in the last couple of days.

The Witness: In going over our records I find that when we abandoned the ferro-alloy department we sold the magnasite, which was equipment or—which was really an operating supply. In other words, it was a lining we used for our crucibles to Vanadium Corporation, and that was sold and the sale was arranged with Mr. Christianson.

Q. (By Mr. Holland): Do you know why Mr. Christianson happened to handle this matter?

A. Well, it would be the normal thing. He is the one who is traveling as a salesman, in charge of the sales around the country, to contact somebody in reference to disposing of the equipment after we made a decision to go out of business.

(Testimony of William R. Bayer.)

Q. Do you know what his instructions were in that respect? A. That I don't.

Q. (By the Court): Now, Mr. Witness, at the time you went out of the ferro-vanadium business, up to that time had you been able to secure vanadium oxide sufficiently to operate your business?

A. At times, yes, and at times, as I said before, there [1418] were delays in our production due to supplies not being readily available in our plant. We varied from time to time. At the time we went out of business we did have sufficient inventory. I think at the end of the year, if my memory—and I refreshed my memory a few days ago—serves me well, I think we had about 50,000 pounds, which was more than a normal month's production.

Q. Well, were you influenced in closing your ferro-vanadium business by the fact that you could not secure vanadium oxide?

A. No, that wasn't the reason for closing.

Mr. Holland: Is your Honor going to take a recess at this time?

The Court: Very well. We will take a short recess.

(Recess.) [1419]

Q. (By Mr. Holland): Mr. Bayer, we were discussing the disposal of your equipment and materials when you went out of the ferro-vanadium business, and I believe you testified that the magnesite was bought by Vanadium Corporation of America, is that correct? A. That is correct.

Q. Do you know what became of the raw mate-

(Testimony of William R. Bayer.)

rials, vanadium oxide, and the finished products, ferro-vanadium and Van-Ex, that you had on hand at the time?

A. To the best of my belief and knowledge it was shipped against orders, either orders that we took as Apex, or orders that Continental Ore took and we shipped for them.

Q. And was the equipment offered to Mr. Leir, Continental Ore Company? A. I believe so.

Q. I hand you letters of April 7, 1942, April 8, 1942, and September 30, 1942, and ask you if you can identify them.

A. I believe these letters are from our files.

Mr. Alioto: We have no objection.

Mr. Holland: Offer them in evidence as defendants' next exhibit.

(The letters referred to were thereupon marked Defendant V Exhibit 2-F in evidence.)

Mr. Holland: The first is a letter from [1420] Continental Ore Corporation, signed by Mr. Leir, to Apex Smelting, dated April 7, 1942:

"We thank you for your letter of April 6th. Right at the moment we are unable to tell you whether we will have use for this equipment. We are negotiating with a party that may be interested in going into this business, but our talks are progressing rather slowly. We think that for the time being the best thing would be for you to keep this property in storage in the corner of your plant. The moment ferro-vanadium can be exported again the equipment will become more valuable, because it

(Testimony of William R. Bayer.)

will be very interesting to produce ferro-vanadium on a smaller scale because of the margin of $1.00 between the domestic and export price, which margin is in favor of the producer.

"Please let us know what you are going to do with this equipment."

The Court: Now, that letter was written by whom, to whom?

Mr. Holland: That was written by Mr. Leir to Apex.

And on the next day, April 8th, Mr. Lippa of Apex replied:

"We have your letter of April 7th and would like [1421] to hold this equipment to one side for you; but unfortunately, space is what we really need at the moment. And in addition to this the present market is a very attractive market to dispose of the equipment.

"Jaw crushers and flat cars particularly take up a lot of room, and you can understand that it would be best to dispose of this material, rather than putting it somewhere where it would rust away; and, therefore, unless you can see the possibilities of using this, we will make attempts to dispose of it."

Then on September 30, 1942, five months later, there is a letter from Mr. Leir to Apex:

"Re: Jaw Crusher.

"We thank you very much for your wire regarding the jaw crusher and have offered it by air mail to our friends in New Mexico.

"We urged them to let us have their decision by

(Testimony of William R. Bayer.)

Friday, but there might be a delay until Saturday if the men are away at the mine.

"In any case, we will endeavor to give you a reply by Saturday noon and hope you can keep this matter open for us until then."

Q. (By Mr. Holland): Now, Mr. Bayer, there has been testimony concerning [1422] the agreement reached with Mr. Leir on the basis on which you could close out this contract, to the effect that you filled, I believe, a couple of orders of ferro-vanadium, and that you continued to ship or produce Van-Ex for Mr. Leir at cost until July 1, 1942, is that correct? A. Yes.

Q. And on June 2, 1942, there is a letter in evidence from your company, written by you to Mr. Leir as agent for Fredet-Kuhlmann, giving formal notice of termination. Do you recall that letter?

A. I do.

Q. I had a copy of it here a minute ago. I don't know what I did with it. However, it is in the record.

Q. (By the Court): How was the cancellation or closing of this contract with Mr. Leir, as the representative, due to your failure to secure vanadium oxide?

A. Not essentially. It was due to a number of other reasons, essentially: lack of profit, difficulty with employees, aggravation—I wouldn't call them serious, but minor aggravations throughout the whole period of operation.

(Testimony of William R. Bayer.)

Q. Do you mean to say that your operation in so far as producing ferro-vanadium was concerned was not successful?

A. I would say that that was it, that it was not successful. And then, again, the need for space for production of [1423] aluminum, which was our principal business, and at that time was a very critical war material, the most critical.

Q. (By Mr. Holland): In connection with your statement regarding difficulty with labor, Mr. Bayer, I hand you two letters, dated January 13th and January 19th, the last written a week before your first cancellation notice, and ask if you can identify those.

A. I can. These are from our files.

Mr. Alioto: No objection.

Mr. Holland: Offer them in evidence as defendants' next exhibit in order.

(The letters referred to were thereupon marked Defendant V Exhibit 2-G in evidence.)

[See Book of Exhibits.]

Mr. Holland: First is a letter dated January 13, 1942, from Apex, signed by Mr. Lippa, to Continental, attention Mr. Leir:

"We have your letter of January 12th, and wish to advise that our Mr. Christianson will be in Washington this week, at which time he will go over this entire matter with the vanadium section of the OPM. After receipt of his report, we will contact you and advise you regarding the results."

Then I am skipping the next paragraph.

(Testimony of William R. Bayer.)

The Court: Just a minute. This was from whom, to whom? [1424]

Mr. Holland: This is from Apex to Continental, Mr. Lippa to Mr. Leir.

"We hope to get into production on ferro alloy this week, although we are having some difficulty with the labor, as most of them refuse to go to work in that department. As you know, we have been trying to secure the proper respirators, but somehow or other we have never been able to get any that keep the dust from getting into the men's throats and nostrils."

And then on January 19th, a letter, also from Mr. Lippa to Mr. Leir.

The Court: What year?

Mr. Holland: 1942. [1425]

"We want you to know that we have been attempting to start the Ferro Department every since last Tuesday, but we have had a lot of labor difficulty. It so happens that our men are now organizing, and the men that we have had in the Ferro Department refuse to go back into it, as they claim that it is injurious to their health. We have promises from a sufficient number of men to start the Department tomorrow, but each of these men have not promised to stay in the Department over four days. What the outcome of this will be, we cannot yet determine, but we will keep you advised."

Now, in your letter of June 2nd, 1942, to which I referred, which is Exhibit V-2-B in this case—and this letter was written by you, Mr. Bayer—you

(Testimony of William R. Bayer.)

enumerated the reasons for your going out of the business, and in enumerating them, you say, "As a matter of fact, this Department was an unprofitable one for various reasons, which we shall try to enumerate below:

"A. According to our contract with the Etablissements Fredet-Kuhlmann, they were to provide us with complete technical advice and assistance. The outbreak of the European war resulted in our not obtaining this complete assistance, and we were forced to arrive at our own conclusions by experimentation. [1426] This not only caused actual losses from faulty qualities produced, but also resulted in considerable delay."

Q. Do you want to amplify on that statement at all, Mr. Bayer?

A. I would say that is correct, and we did also, at the suggestion of Mr. Leir, employ a consultant, a Mr. Chubb, I think, from Montreal, Canada, who was supposedly—and I don't say that in any other implication except from what I know of his background, he was an expert in his field, and while he did give us some help, he didn't give us all the—he was unable to give us all the answers that we required. We had difficulty in getting the proper recoveries, and when our ore sources varied from one to the other, there was a difference in the ore, and it took us a while to standardize our mix in order to get the optimum recovery out of the material.

Q. "B. We had to contend with recoveries which

(Testimony of William R. Bayer.)

were far below those expected, as far as the vanadic acid from Shattuck is concerned. We had correspondence with Brignoud on this point on March 25th, April 11th, 1940, but in spite of Brignoud's advice, could not materially improve that recovery." A. That is a fact. [1427]

Q. "C. We also had continual trouble with our labor force, because of the health hazard involved in the production of ferro-vanadium, in view of the poisonous character of vanadium fumes and dust." I believe that the letters I just read amplify that contention.

"D. When it was first decided to go into the production of ferro alloys, all calculations were based on the assumption that duraluminum could be used for this manufacture *was* it was in France. It became obvious, however, that the quality standards in this country with regard to copper do not allow the use of impure aluminum, and we therefore had to use material *which* as high as 99% purity for this manufacture, which considerably influenced the calculation."

I believe you already testified to that, is that correct? A. That is correct.

Q. "E. Regarding the production of Ferro Tungsten, you know yourself that the sales prices are fixed at a level which makes it impossible for use to compete with the much cheaper electric furnace production."

Do you have any amplication of that statement?

A. No, no particular amplification. [1428]

(Testimony of William R. Bayer.)

Q. Mr. Bayer, technically you terminated the contract under its terms which permitted termination under certain circumstances, is that correct?

A. That is right. I would say the failure to achieve a certain profit over a period of two years, which I believe was $7500. I have the contract to check.

The Court: I think that is correct. In the record.

The Witness: That is correct. In the record.

Mr. Holland: That is all.

Cross Examination

Q. (By Mr. Alioto): Mr. Bayer, there has been considerable reference in your examination to a Mr. Lippa. Who was Mr. Lippa in the period 1938 through 1942?

A. An officer of Apex Smelting Company.

Q. He was one of the chief managing officers of the Apex Smelting Company, was he not?

A. That is correct.

Q. And would you say he was the man principally involved in connection with working out this matter of producing ferro-vanadium?

A. What do you mean? I wish you would explain your question.

Q. He was the most active agent, was he not, in the company, in negotiating the contract with Mr. Leir and [1429] then in attempting to put it into effect? A. No, I wouldn't say that.

Q. Who were the men?

(Testimony of William R. Bayer.)

A. I would say Mr. Singer was equally as active, and Mr. Starmann from the technical end, and I from the accounting and quasi-legal end.

Q. Then shall we say that Mr. Lippa and actually Mr. Singer were the two most active officers, weren't they? A. No, I wouldn't say that.

Q. You say quasi-legal. Are you an attorney?

A. No, that is why I say "quasi". I am a C.P.A. and therefore I have always handled the relationships in our firm with the legal profession. Anything that smelled of any legality, contracts, or anything, I have always gone over it first.

Q. What was Mr. Lippa's last position with the company?

A. What do you mean? He is still with the company.

Q. What is his position now with the company?

A. At the present time he is president.

Q. President of the company? A. Right.

Q. And Mr. Singer is the chairman of the board?

A. That is correct.

Q. And they reside in Chicago, do they?

A. That is correct. [1430]

Q. And they work in Chicago?

A. That is correct.

Q. And that is where you reside and work, too, I take it, Mr. Bayer? A. Correct.

Q. Did you participate in the negotiations for the original contract between Apex and the French company represented by Mr. Leir?

(Testimony of William R. Bayer.)

A. If you mean participate in an actual discussion——

Q. Yes. A. In a conference?

Q. Yes.

A. No. As an advisor to the terms, yes.

Q. But you did not take part actually in the negotiations between Mr. Leir and Mr. Singer?

A. No, physically I did not discuss it with Mr. Leir, the terms of the contract, though I was in contact with Mr. Leir at that time when he was in Chicago.

Q. It was actually Mr. Lippa and Mr. Singer who were the ones who did this negotiating with Mr. Leir, is that correct?

A. Essentially Mr. Singer.

Q. But Mr. Lippa also participated, however?

A. That is right, to a degree.

Q. At that time did you, as a member of the policy committee [1431] canvass the ferro-vanadium field to determine whether or not it would be feasible to enter into the manufacture of ferro-vanadium? A. We did make some inquiries.

Q. And I take it that you believed it was feasible at the time to enter into the manufacture of ferro-vanadium?

A. With the information that we had, and with the assurances of Mr. Leir, we believed it was feasible.

Q. Did those assurances relate to a source of supply of getting vanadium oxide?

(Testimony of William R. Bayer.)

A. They related both to supply, sale and technical assistance, all three.

Q. Now, then, taking those three up separately, Mr. Lippa himself made quite a considerable effort beginning in 1938 to get a source of supply, didn't he?

A. Under the direction of Mr. Leir, especially.

Q. Yes, but he himself participated?

A. He participated in that. In other words, Mr. Leir gave him the contacts and the leads, and Mr. Lippa made the contacts in the name of Apex Smelting Company.

Q. Don't you recall that Mr. Lippa on his own or with Mr. Leir's help, either way, secured a list of independent mining companies in the Colorado Plateau, independent miners, from the Bureau of Mines?

A. That was with Mr. Leir's help. [1432]

Q. And do you recall that Mr. Lippa personally wrote letters to all those miners whose names he had secured? A. That is correct.

Q. Without burdening the record, this is a kind of big batch, but let me show you one letter in connection with his trying to get a source of supply in 1938.

A. That is correct. These are form letters which went out under Mr. Lippa's name.

Q. There were many, many of those letters, were there not?

A. Yes, there was a lot of correspondence.

Mr. Alioto: As an example of that type of effort,

(Testimony of William R. Bayer.)

we offer this document as plaintiffs' Exhibit next in order in connection with the cross-examination of this witness.

Mr. Holland: No objection.

Mr. Alioto: I do not think it is necessary to read it now, if your Honor please.

(The document referred to was thereupon received in evidence and marked Plaintiffs' Exhibit No. 142.)

Q. (By Mr. Alioto): Now, Mr. Lippa also followed up on these contracts he made out on the Colorado Plateau among the independent miners and the independent mining companies, did he not?

A. What do you mean by following up? Sending a second letter? [1433]

Q. He followed up the correspondence and tried to nail it down, did he not?

A. I believe so.

Mr. Holland: The only question I have in respect to that letter is the date is prior to July 1, 1938 and I do not want to be held to have waived any position we have taken in that respect.

Mr. Alioto: No, but it is in connection with this very thing we are talking about, the Apex contract, your Honor.

Mr. Holland: If it is understand that we are not waiving our position——

Mr. Alioto: We are not going to make any such point, Mr. Holland.

The Court: Very well, let it be admitted.

Mr. Alioto: So there won't be any question about

(Testimony of William R. Bayer.)

it, this exhibit that has been admitted, the request to get vanadium concentrates and vanadium oxide was made specifically in connection with the collaborative effort between you and Mr. Leir, is that correct, Mr. Bayer?

The Witness: That is correct.

Q. There is no question about that, is there?

A. No, I do not think there is any question about it. Mr. Leir spent considerable time at our office and I remember even my brother acted as his secretary at times. [1434]

Q. He spent about three months in Chicago trying——

A. In Chicago, trying to get sources of information.

Q. That is right. And you folks worked along with him trying to get an independent source of supply, did you not? A. That is correct.

Q. And you got a little discouraged in 1938, didn't you, Mr. Bayer, about getting a steady, independent source?

A. That I don't recall the details of.

Q. Don't you have some recollection that you had difficulty getting an independent source of supply?

A. In 1938 we were not in operation.

Could I ask a question?

Q. Go ahead.

A. What is the date of our contract?

Q. Your contract is dated July of 1938.

A. 1938?

Q. Yes.

(Testimony of William R. Bayer.)

A. That is when we entered into it. Then we didn't require a source of supply—I mean, we didn't require supplies until we were in operation sometime in the 1939 period.

Q. Yes. But there was no doubt that you had difficulty about getting a source of supply?

A. To arrange for it in advance when we got into operation.

Q. And you had trouble getting it, didn't you?

A. I imagine so.

Q. You remember definitely you had trouble, don't you?

A. What do you mean by "trouble"?

Q. Trouble getting a steady, dependable source of supply.

A. I don't know what you mean by "trouble," again.

Q. (By The Court): Was it difficult to get a source of supply?

A. We couldn't just go out and get the supply.

Q. What?

A. We couldn't reach out and freely and easily get it. We had to make arrangements with sources. We started the operations. We had sources of supply prior to our starting the operations.

Q. (By Mr. Alioto): In late 1938 and early 1939 you were complaining to Mr. Leir, were you not, about your inability to get a source of supply that you knew was steady and dependable?

The Court: When?

(Testimony of William R. Bayer.)

Mr. Alioto: The end of 1938, the beginning of 1939.

Q. (By The Court): When did you start your business?

A. Let's see—we were experimenting for quite awhile. Let me get this date again. We made our first commercial heat on April 19, 1940.

Q. At that time were you able to get a supply of vanadium [1436] oxide?

A. To the best of my belief, yes.

Q. (By Mr. Alioto): Were you able to get a regular, steady, dependable source of supply in 1940?

A. If I may refresh my memory—for the amount of production that we did make, yes. Let me put it this way, too: We didn't have a one source of uniform supply, which did help, or add to, production difficulties.

Q. And you were trying to get a source of supply that would be steady and dependable, weren't you?

A. When you call "dependable," I would say this: It would have assisted us in our production if we had a source which would have given us constantly the same size chemical constituents, et cetera, of vanadic oxide, so we could have a standard charge, instead of having to experiment every time a lot came in in order to arrive at a charge, or a mix, in order to try to get the optimum recovery.

Q. Isn't it a fact, Mr. Bayer, that at that time your source of supply was so undependable that as

(Testimony of William R. Bayer.)

a matter of policy you attempted to get it from the Vanadium Corporation of America and from Electro Met? A. That I don't know.

Q. I will show you the documents which have been marked in evidence here Plaintiffs' Exhibit 63. I think the date you [1437] gave the Court was April, 1940. A. Yes.

Q. This date is March 11, 1940. Mr. Lippa writes to the Vanadium Corporation of America and says:

"Please be good enough to let us have your very best price on quantity lots of vanadium pentoxide crushed to one-quarter inch and under. We desire this material for domestic consumption. Your immediate response will be very much appreciated."

He wrote again on April 8th.

The Court: What date was that?

Mr. Alioto: March 11, 1940, if your Honor please.

Q. (By Mr. Alioto): Then you wrote again on April 8th, 1940, Mr. Bayer, and you reminded him that he had not answered your letter, and you enclosed a copy of the letter.

Then on April 20, 1940, Mr. Gustav Laub, the assistant vice-president of Vanadium Corporation of America, wrote back and said:

"In reply to your letter of April 8th enclosing copy of your letter of March 11th, which apparently went astray, would advise that our position is such that we have no material to offer you at present."

(Testimony of William R. Bayer.)

Do you generally recall that correspondence with the Vanadium Corporation of America? [1438]

A. Yes, I do.

Q. Do you also recall that at or about that time you made an oral request to the Electro Met Company to supply you with regular quantities?

A. Yes—that I don't recall exactly, but I do recall a letter I have seen recently in reviewing these files from Continental Ore where he suggests that we make these—Mr. Leir suggests that we make these contacts for certain reasons.

Q. Was this in March of 1940, the letter you are referring to?

A. Yes, at that time, which occasioned this letter.

Q. Now then, do you recall you also inquired of the metallurgical company as to whether or not you could have a source of supply?

A. The suggestion of Mr. Leir encompassed both, if I recall, inquiring of each company, and they talked in terms of an order of about 5,000 pounds.

Q. In any event, getting a regular supply?

A. That is correct.

Q. Now, isn't it your recollection that each of these companies turned you down at that time?

A. It is evident in the fact that we did not buy any vanadic oxide from either of those companies.

Q. Isn't it also your recollection that at or about that time, Mr. Bayer, you complained to the Continental Ore Company [1439] that you weren't able

(Testimony of William R. Bayer.)

to get a steady, dependable source of supply of vanadium oxide?

A. We complained—I don't know if it is exactly that time, but we did complain from time to time.

Q. Yes. And "from time to time" included 1940 and 1941, didn't it?

A. That's right. As I said before, at times we had sufficient good supplies, and at times we didn't. It was irregular.

Q. Now, you recognize that you can't run a manufacturing operation under that kind of a condition, don't you, Mr. Bayer?

A. It is difficult.

Q. And you told Mr. Leir it was difficult because of that situation, didn't you?

A. That's right.

Q. Now then, I believe the Court asked you as of December of 1941 whether or not you had a sufficient source of supply of vanadium oxide, and I recall that you answered to the Court that you did have a sufficient supply, and you predicated that answer upon refreshing your memory from some document that you looked at.

A. That is correct.

Q. Would you be good enough to show me the document that you had reference to, Mr. Bayer, so that we might understand that answer? [1440]

A. Yes.

This was our inventory of our ferro alloy department at December 31, 1941, which shows that we

(Testimony of William R. Bayer.)

had (handing document to Mr. Alioto)—. The top section is your vanadium——

Q. (By The Court): Shows what?

A. Well, I can't say. He has it.

Q. (By Mr. Alioto): Would you be good enough to simply read for us what supply it shows you had on hand?

A. Vanadium ore—in detail, or in total?

Q. Well, read it. A. Just the total?

Q. Read it any way you want to do it.

A. Well, we had 45,827 pounds of vanadium ore on hand at December 31, 1941.

Q. (By The Court): Is that what you call vanadium oxide?

A. Vanadium oxide. That had a V_2O_5 content of, roughly, looking at these figures, which I would say would average about 80 percent.

Mr. Alioto: May we have this marked for identification at this point, so that we will have an opportunity to look at it? This is the first that we have seen of this inventory. [1441]

The Court: Why is it necessary to encumber the record?

Mr. Alioto: I am asking only for it to be marked for identification, if your Honor please—not in evidence. We are not offering it in evidence. I want a chance to look at it during the noon hour, if your Honor please.

The Court: Very well.

(Testimony of William R. Bayer.)

(The inventory referred to was thereupon marked Plaintiffs' Exhibit No. 143 for identification.)

Q. (By Mr. Alioto): Now then, the fact of the matter remains, Mr. Bayer, that you were very much concerned about your supply in December, 1941, doesn't it? A. I do not know, offhand.

Q. So much so that you wrote to the government for help on it. You remember that?

A. In connection with what?

Q. In connection with getting a steady supply of vanadium oxide.

A. In connection with the defense plant, which they were—I am trying to think, now—there was a defense plant coming in.

Q. There was no attempt to catch you, sir. Let me show you a letter that you received from the government, and I think it will refresh your recollection. [1442]

Q. (By The Court): Why was the government mixed up in this?

A. Well, priorities went into effect.

Q. Oh.

A. And we were having difficulty even getting authorization to have, say, Shattuck, and Nisley & Wilson, who were regular shippers, ship to us.

Q. Was that all done under authorization of the government?

A. Yes. Right about that time—I don't know the date, but I think priorities went into effect,

(Testimony of William R. Bayer.)

evidently, some place around November or December of 1941,——

Mr. Alioto: '41.

A. ——when allocations came in.

Q. (By Mr. Alioto): Yes. We have had evidence on that already. And you were assigned the job of working out those allocations with Washington? A. That's right.

Q. And, as a matter of fact, you worked them out in January of 1942? A. Yes.

Q. That is correct, is it not?

A. I had some conversations—I have some records here, memos of conversations and letters, correspondence with Mr. [1443] Jenekes at that time.

Q. But in any event, within a month you had the matter of allocation straightened out; you were given the job to do and you did that job, didn't you?

A. Evidently.

Q. And you had them straightened out in January of 1942? A. That's right.

Q. So allocations were no problem to you, were they, after that, Mr. Bayer?

A. I know they were of an intense problem at that time. Now, what future ones were, I don't know.

Q. (By The Court): Well, now, in January of '42, when these allocations were worked out, as you say, were you able, at Apex, to get the aluminum oxide that you needed and furnished you in your business?

A. In '42 we received 63,000 pounds of vana-

(Testimony of William R. Bayer.)

dium oxide. But that was, again, in the period in which we were going out of business. So we received enough to fill all the orders that we had on our books, and were responsible for, and we more or less turned over the other—we handled it in name, and physically, for Continental Ore. So I can't tell, or testify, as to whether we had sufficient—. We had sufficient for what we were responsible for. In other words, if orders which we had on our books at, say, January 1, 1942, [1444] well, we were in a relatively even position—we had sufficient oxide on hand to cover our orders.

Q. (By Mr. Alioto): You mean you had sufficient to go out of business?

A. We had sufficient to liquidate.

Q. That's it. A. To cover our orders.

Q. And that's all.

A. To cover our orders. And we received sufficient to take care of some new orders that came in.

Q. All right. Now then, in the preceding month, in December of '41, do you recall that you made a contact with the government for the purpose of getting some of the vanadium production from the Monticello plant of the Vanadium Corporation of America which the Defense Plant was building for the Vanadium Corporation of America?

A. I believe we did.

Q. Yes. Well,——

A. I have seen some correspondence.

Q. Take a look at this so we can refresh your

(Testimony of William R. Bayer.)

memory and get the story on the effort made to get a steady supply at the time, Mr. Bayer.

A. (After examining file.) Yes, there was a series of correspondence——

Q. Yes. And I take it you recall that effort to get a [1445] steady supply?

A. That's right. There was a series of correspondence.

Q. You recall that effort to get a steady supply from the Vanadium Corporation of America, is that right?

A. (Examining documents.) Let me see what I have here to refresh my memory.

I have here a letter from Continental Ore dated December 8, 1941, that apparently is pertinent to this. I can't offer anything in evidence, can I? Can I read?

Q. Go ahead and read whatever you want to.

A. (Reading.) "You probably read about four weeks ago that the Defense Plant Corporation, RFC subsidiary, has made an agreement with Vanadium Corporation of America for the construction of a new vanadic acid plant at Monticello, Utah. In order to avoid any misunderstandings, this plant is the property of the Defense Plant Corporation, and would be only managed by Vanadium Corporation. Therefore, it is probable that you can secure certain quantities of vanadic acid from this plant, and we recommend that you send a letter to Washington as per the copy herewith enclosed. A copy of your letter should also be sent to the office of Mr.

(Testimony of William R. Bayer.)

Floyd B. Oldham, Director, Division of Contract Distribution, OPM, Washington, D. C."

Signed "Continental Ore—Leir." [1446]

And then, evidently, as per that letter——

Q. Yes, sir.

A. ——we did then go into correspondence on this Defense Plant.

Q. Did you write on December 13, 1941?

A. Let me—can I have a minute here?

Q. You certainly may. Take as much time as you want, as far as I am concerned.

A. (Examining documents.) Now, here's another letter, then, on December 9th, from Continental Ore to Apex (reading):

"Re: Defense Plant Corporation.

"We refer to our letter of yesterday and want to remind you of the letter which the Contract Division sent to us on September 19th. For your convenience we are enclosing another copy. It might be a good idea for you to refer to this letter when sending them the copy of yours to the Defense Plant Corporation. There is no question but that you are entitled to some of this vanadic acid for conversion. You will agree with *is* it would be very desirable to receive material from the Defense Plant Corporation, because it certainly would arrive in full carloads, and everything would very simple. In any case we hope that your new department will be available to handle easily fifty to a hundred thousand per month." [1447]

Signed "Continental Ore."

(Testimony of William R. Bayer.)

And then based on that I have a file copy of a December 13th letter which we wrote to DPC (reading):

"We understand that you are erecting a new plant near Monticello, Utah, for the production of vanadium pentoxide. To the best of our knowledge, outside of U. S., Vanadium Corporation of America, we are the only producer of ferro-vanadium in this country. Our plant for the production of ferro alloys was built in 1939, and since then we have been producing an excellent quality of ferro-vanadium which is being well received. However, we cannot make use of all of our production facilities due to the lack of raw material, which is fused vanadic pentoxide, and therefore we would appreciate greatly if you would make it possible for us to secure from the new plant a reasonable tonnage of vanadium pentoxide for conversion into ferro-vanadium. We shall welcome your advice from you as to whether this would be possible."

Signed "Lippa," with a carbon copy to Continental and to Floyd B. Oldham.

Q. I take that you were in on the conferences——

Q. (By The Court): Who wrote that letter?

A. Mr. Lippa. [1448]

Q. (By Mr. Alioto): And he was your chief managing agent, together with Mr. Singer, at the time, was he not? A. Essentially, yes.

Q. Can you detach that correspondence that you have read, Mr. Bayer?

(Testimony of William R. Bayer.)

A. You can have the whole thing, right there.

Q. Thank you very much.

Now, I take it that to your knowledge the facts that you represented to the government on December 13 of 1941 were true, were they not, Mr. Bayer?

A. Yes.

Q. And if they weren't true, you certainly wouldn't have made those recommendations to the government, would you?

A. As far as I know.

Q. Well, you would know that. You wouldn't participate in lying to the government, would you?

A. No.

Q. Of course not.

A. I would not participate in any lying.

Mr. Alioto: All right, we offer this in evidence.

The Court: They have been read, haven't they?

Mr. Alioto: I am offering them in evidence.

The Court: He has already read them in evidence.

Mr. Alioto: He hasn't read all, if your Honor please, and we still think that the document ought to be physically a part of the record.

The Court: Very well, let it be admitted.

Mr. Alioto: Thank you. We will ask it be marked next in order.

(The exchange of correspondence referred to was marked Plaintiffs' Exhibit No. 144 in evidence.)

[See Book of Exhibits.]

Q. (By The Court): Whether you were able to

(Testimony of William R. Bayer.)

get material from this Monticello factory in Colorado or not, that was due, or dependent, upon the order of an agency of the United States Government?

A. I imagine so. I haven't here the answers to those letters, so I don't know what was—offhand, my memory is very vague as to the results of that correspondence.

Q. (By Mr. Aiioto): Well, may I supply you the answer to your letter of December 13th that you just read?

I show you a letter dated December 20, 1941, from John W. Snyder, Executive Vice President of Defense Plant Corporation, to Mr. Al Lippa. I see that your name is scribbled on there, and some hand writing, Mr. Bayer. Would you be good enough to tell us whether that letter was received by your company?

A. Yes. That is Mr. Lippa's handwriting. I recognize it. [1450] And he is turning it over to me for action.

Q. When you say that is Mr. Lippa's handwriting, you are referring to the handwriting, Mr. Bayer, "W. Bayer," written on the lower left-hand side of the document, which is dated December 20, 1941? A. That is correct.

Q. All right. So that you received that letter—you are nodding your head, Mr. Bayer. We have a little tyrant here (indicating court reporter); you have to say "Yes."

A. I didn't say anything, yet. I am reading it.

(Testimony of William R. Bayer.)

Q. O. K.

A. Yes, we evidently received this letter.

Q. All right.

A. That explains why I didn't have a knowledge of it at this moment.

Mr. Alioto: Yes.

We will offer it into evidence, if your Honor please, as plaintiffs' exhibit next in order.

The Witness: And subsequent to that, I would say then I contacted, in accordance with instructions, the priority division——

(The letter referred to was thereupon marked Plaintiffs' Exhibit No. 145 in evidence.)

Mr. Holland: Mr. Alioto, do you want the other one in evidence? Have you offered the other one in evidence [1451] yet, the ones that preceded this?

Mr. Alioto: I have already done that, Mr. Holland.

Mr. Holland: I didn't hear you offer them in evidence. However, we have no objection.

Mr. Alioto: They were offered and marked as 144, and this is 145, this document.

Mr. Holland: We have no objection.

The Witness: Can I add one thing at this time?

The Court: We will take them one at a time, and you can add anything, as far as I am concerned, sir.

Let him read the letter, first.

Mr. Alioto: This letter, dated December 20, 1941, —you recall that the first one was to the government, dated December 13, 1941, that the witness

(Testimony of William R. Bayer.)

read—this one states—on December 20, Mr. John W. Snyder, the executive vice-president of the Defense Corporation, writes to Mr. Lippa, the Apex Smelting Company (reading):

"Dear Mr. Lippa:

"Reference is made to your letter of December 13, 1941, requesting information as to the possibility of acquiring reasonable tonnage of vanadium pentoxide for conversion into ferro-vanadium. This corporation has made a commitment to the Vanadium Corporation of America for the construction of a new plant near Monticello, Utah, for the production of vanadium [1452] pentoxide. The entire facilities of this plant will be leased to the Vanadium Corporation, and therefore it is suggested that you contact them with reference to obtaining a portion of the output of this proposed plant. It is further suggested that if you have not already obtained a priority allocation for vanadium pentoxide that you contact Mr. H. K. Masters, Office of Production Management, Social Security Building, Washington, D. C., relative to obtaining such allocation."

And then, members of the jury, you will recall that the witness made reference to a "W. Bayer" direction under that allocation business that was made by Mr. Lippa.

The Witness: What is the date of that letter?

Mr. Alioto: This letter is dated December 20, 1941.

Is there something you wanted to add? I intended

(Testimony of William R. Bayer.)

to go along, but you go ahead and add what you have in mind, and I can take it up later.

The Witness: Just to continue the same topic, as I was looking through here, then coincidental with that we received a letter from Mr. Leir suggesting that we—in reference to General Preference Order M23A, Vanadium, that we contact the vanadium branch in reference to getting allocations, and he gave us a suggested draft of letter, and using [1453] his draft with modifications I wrote a letter to Mr. H. K. Masters of the OPM, starting out—do you want me to read that?—(reading):

"We are writing this letter"——

Q. (By the Court): "OPM." What is that?

A. Office of Production Management. That was——

Q. Oh, this is the Vanadium Company?

A. No, this was the office—OPM was the government agency which controlled allocations and production.

The Court: All right.

The Witness: (reading) "We are writing this letter"——

This is dated December 26, 1941 (reading):

"We are writing this letter at the suggestion of Mr. John W. Snyder, executive vice-president of the Defense Plant Corporation, requesting permission to continue the purchasing of vanadic pentoxide for our ferrovanadium department. This material is used by us in the production of ferrovanadium and vanadium compound which we sell to steel

(Testimony of William R. Bayer.)

mills throughout the country. Our production of ferrovanadium is in a special low carbon form with the following general characteristics: V 70 to 80 percent—C 0.2 percent. [1454]

"Our capacity for production of this material is about 50 to 60 thousand pounds of V contained per month. But at the present time we are producing only a fraction of this capacity due to lack of raw material.

"Our present sources of supply are Blanding Mines Company, Nisley & Wilson vanadium mills, S. W. Shattuck Chemical Company"——

giving the addresses (continuing reading):

"We would appreciate receiving permission from you to continue the purchasing of vanadic pentoxide from these sources and wish to place our facilities at the disposal of your department for the conversion of any additional quantities of vanadium pentoxide you may see fit to allocate to us. We, of course, will ship vanadium to steel mills only upon authorization from your department."

And then—

Q. (By Mr. Alioto): Now, excuse me, sir, who wrote that letter that you just read?

A. Evidently I did, because my initials are down as dictating it.

Q. And then you were authorized by Mr. Lippa to write that letter? [1455]

A. He suggested it.

(Testimony of William R. Bayer.)

Q. Certainly everything you told the government in that letter was correct, wasn't it, Mr. Bayer? A. Essentially so.

Q. Were you manufacturing ferro-vanadium at that time?

A. Yes, we were. That was a time when our—well, you ask if we were manufacturing. At that moment our ferro-vanadium department was shut down due to the fire, and we were in the process of reconstructing it, after we had that conversation with Mr. Leir in November in Chicago.

Q. Well, now, specifically, the statement that you make in that letter with respect to not operating full capacity because of a lack of raw materials, that statement was true when you made it, was it not, sir?

A. As far as I know, yes.

Q. In other words, you wouldn't have made that statement to the government if it weren't true?

A. Deliberately, no.

Q. And what is the date of the letter?

A. The date of that letter is December 26, 1941.

Mr. Alioto: Thank you.

May I take a look at it, sir?

Q. (By Mr. Alioto): Now then, you also made the statement in this letter that you wrote to the government that the ferro-vanadium you [1456] were manufacturing received an excellent reception from the leading steel mills.

(Testimony of William R. Bayer.)

A. I don't think we made that in that letter. I didn't read that. I think you are reading from Mr. Leir's suggested draft.

Q. Well, let me—show me the letter you read.

A. The yellow copy is the one that I sent. The white copy is the suggested draft that Mr. Leir wrote to us.

Q. Fine. A. O. K.

Mr. Archer: I think we should have both of those marked.

Mr. Alioto: What?

Mr. Archer: I think we should have Mr. Leir's draft in.

Mr. Alioto: At counsel's suggestion we will offer this entire thing in evidence.

(The exchange of correspondence referred to was marked Plaintiffs' Exhibit No. 146 in evidence.)

[See Book of Exhibits.]

Mr. Archer: Will you identify for the record which is Mr. Leir's?

Mr. Alioto: I will identify each of them, sir.

I am happy to accommodate counsel in that connection.

The Court: Well, at this time we will recess until two o'clock.

(Whereupon a recess was taken until 2:00 o'clock p.m.) [1457]

Monday, June 16, 1958—2:00 O'Clock P.M.

WILLIAM R. BAYER

recalled as a witness on behalf of the defendants, having been previously duly sworn, resumed the stand and testified as follows:

Cross-Examination—(Continued)

Q. (By Mr. Alioto): Mr. Bayer, did there come a time when you entered into negotiations with the Vanadium Corporation of America to sell that company some of your aluminum products?

A. Some of our aluminum products?

Q. Yes.

A. We have sold the Vanadium Corporation aluminum products from time to time.

Q. Have you sold them any low copper grained aluminum?

A. When we took over on January 1, 1948, we bought the plant in Cleveland, which was formerly owned by National Smelting Company, who at that time were supplying Vanadium Corporation with grained aluminum, and starting with January, 1948, we sold them substantial quantities of grain aluminum in that period until we discontinued our grain department, oh, I would say about four years ago, sold off the equipment. They installed some equipment, and we have been buying some little grain from them since.

Q. Who installed the equipment? [1458]

A. Vanadium Corporation produces some grain.

(Testimony of William R. Bayer.)

We discontinued our grain department and so now we are customers of theirs.

Q. Let me understand this. They helped you build a plant, you say?

A. No, no, we bought a plant in Cleveland——

Q. Yes.

A. *That plant was making* grained aluminum as one of the products and had Vanadium Corporation as a customer.

Q. Yes.

A. When we took over the operations of the plant, we then assumed a selling arrangement or they became our customers as they were customers of the producer.

Q. You sold them grained aluminum?

A. That is right, from January 1, 1948.

Q. Did you sell them substantial amounts of grained aluminum?

A. During that period?

Q. Yes.

A. I would say I don't know how substantial. We sold them regularly.

Q. Could you make a dollar estimate on an annual basis of the amounts sold them? A. No.

Q. Do you have any records here that would show that? [1459]

A. No, I have not.

Q. Then you say there came a time when you dismantled that plant?

A. Not the plant, but the grain department of

(Testimony of William R. Bayer.)

that plant, because we needed space for other production.

Q. (By the Court): When did that occur?

A. I would say offhand—and this is a guess—probably in the early '50s, about '52. That is a guess.

Q. (By Mr. Alioto): Have your sold the Vanadium Corporation of America anything since that time?

A. Since that time we have made them occasional sales of aluminum at times when we bought grained aluminum from them. And they started, about the time we discontinued our grain department, or shortly thereafter, they started producing grained aluminum and we still had one or two customers that called or required a small amount of grained aluminum during the course of a year, and whenever we have a requirement for that, we have bought it from Vanadium Corporation and usually at that time we have sold them an equivalent amount of aluminum ingot, so in effect they have tolled our aluminum ingot into grain.

Q. You have a good working arrangement with the Aluminum Corporation of America?

The Court: What has that got to do with the lawsuit? [1460]

Mr. Alioto: The matter of interest of this witness.

The Court: How?

Mr. Alioto: The matter of the interest of this witness.

(Testimony of William R. Bayer.)

The Court: I don't see the materiality.

Q. (By Mr. Alioto): You have had a good working arrangement with the Vanadium Corporation of America, haven't you?

A. Working arrangement? No, we have no working arrangement with them.

Q. (By the Court): Well, you have dealt with them?

A. We have dealt with them back and forth.

Q. (By Mr. Alioto): And you are still dealing with them today?

A. Very occasionally.

Q. And you still sell them aluminum?

A. I don't think we have sold them any aluminum this year or probably in the last year or so.

Q. In connection with the sale of equipment back in 1942, did you personally participate in the negotiations to sell that equipment to the Vanadium Corporation of America?

A. When you say "personally participate," I would say no. I was cognizant of the fact that after we decided to discontinue the ferro department, the next logical step that we took was to sell for as much money as we could get with the equipment, [1461] and one of the logical people who might be interested in that type of equipment would be anybody who was making ferro-vanadium.

Q. And how many people were making ferro-vanadium at the time?

A. Vanadium Corporation is one and I believe Electromet was another.

(Testimony of William R. Bayer.)

Q. Did you contact both of them?

A. I don't know who we contacted. That was turned over to Christiansen. He was the outside man who made some contacts.

Q. Do you know what ultimately was sold to the Vanadium Corporation of America?

A. Yes, I do.

Q. What was sold?

A. Approximately 40,000 pounds of magnasite.

Q. What did you use that 40,000 pounds of magnasite for?

A. The magnasite was used to make the crucible in which the thermit reaction took place.

Q. That crucible in which the thermit reaction took place was the very heart of your operation, wasn't it, so far as ferro-vanadium was concerned?

A. That was——

Q. That was it?

A. You say the heart of the operation. That was where the production took place, in a crucible.

Q. What did you do with the crucible itself?

A. The crucible itself? [1462]

Q. Yes.

A. I am trying to recall that. We didn't have a crucible, as I recall it. It essentially was a band in which we took this magnasite and made a crucible. The crucible was actually, as I recall it, built by ourselves. Each time you made a heat you built a crucible of magnasite and destroyed the crucible when the heat was completed.

(Testimony of William R. Bayer.)

Q. Was anything else sold to the Vanadium Corporation of America at the time?

A. Not to my knowledge.

Q. Do you know whether at that time there was negotiation between your company and the Vanadium Corporation of America concerning their purchase of grained aluminum from your company?

A. Our company did not make grained aluminum at that time.

Q. What kind of aluminum? Was there a discussion then relating to the sale of any product made by you to the Vanadium Corporation of America at the time?

A. Not to my particular knowledge.

Q. You say particular knowledge.

A. Not to my knowledge, no.

Q. You were asked to come out here as a witness by the Vanadium Corporation of America?

A. That is right.

Q. I take it before you went on the stand you reviewed [1463] certain interoffice memoranda between your company, your Mr. Christiansen and Mr. Laub of the Vanadium Corporation of America. did you not?

A. I didn't have that correspondence in my office.

Q. I am not asking you whether you had it in your office.

A. So I couldn't review it.

Q. I ask you whether you went over it with any of the attorneys in this case.

(Testimony of William R. Bayer.)

A. Before I came up——

The Court: Just a moment. That is not an improper matter for an attorney, to talk to a witness before he puts him on the stand.

Mr. Alioto: I am not suggesting that at all, your Honor. We all speak to them. But this witness has now said he did not speak to him on the subject, so there is no problem about it.

Mr. Holland: He didn't say that, I don't think.

The Witness: I didn't say that.

The Court: He didn't say anything like that.

The Witness: You said before I came out here——

Q. (By Mr. Alioto): No, before you went on the stand did you discuss with anybody the existence of certain interoffice memoranda relating to conversations between your Mr. Christiansen and Mr. Gustaf Laub of the Vanadium Corporation of America? [1464]

A. Yes, I learned about that yesterday.

Q. All right, you learned about that yesterday and you read those memoranda?

A. Yes, I did.

Q. I show you a copy of Plaintiff's Exhibit 62 in evidence in this case. Is that the memoranda you read yesterday — or, rather, are those the memoranda that you read yesterday?

A. Without spending a lot of time, they appear to be.

Q. So far as your knowledge is concerned, are

(Testimony of William R. Bayer.)

the facts stated in those memoranda relating to the Apex Smelting Company true?

A. I don't have much recollection of those facts, but as far as I know there is no untruths.

Q. As far as you know what?

A. There is no untruths.

Q. So far as you know there are no untruths?

A. So far as I know some of it is logical, some of it I would dispute. There are a couple of statements there—can I see it again?

Q. Yes, certainly.

A. For instance, Mr. Leir was getting a 50% cut in the profits. That is something that was an untruth, and actually Mr. Christiansen didn't have much knowledge, or he had hazy or sketchy knowledge, but no intimate knowledge of the details of the ferro-vanadium business. In other words, as I said before, [1465] he was Sales Manager and Vice President in charge of sales. Apparently the disposition, or the attempt to dispose of this equipment was turned over to him, but some of the conversation in here as to the operations of the ferro department he wasn't fully familiar with. That is hearsay. For instance, I happen to remember this part yesterday when I went over it. Mr. Leir was getting a 50% cut in the profits.

Q. That was not so?

A. That is incorrect.

Q. Is there anything else that you recall as being incorrect or glaringly incorrect?

(Testimony of William R. Bayer.)

A. Let me look at it. The second one I have never seen. That I have never seen.

Q. The third one—you saw that third one yesterday, didn't you?

A. Well, the fact that the contract with Mr. Leir extended over the balance of the calendar year, that was incorrect.

Q. O.K.

A. The fact that our attorney said Mr. Leir had a strong case against us, that was incorrect.

The fact that they had come to a definite conclusion—that we had not come to a definite conclusion about turning over the raw material and equipment contracts after that time to Mr. Leir, that was incorrect.

This statement here, he appeared to be [1466] most anxious that he obtain these raw materials—of course, I don't know how—I can't testify as to any anxiety on Mr. Christiansen's part or lack of it to get these raw materials, rather than the possibility of Mr. Leir's getting them, but continuing the vanadium business is incorrect so far as I went, or the company's, because I know at that time, and after that time, we cooperated with Mr. Leir on a number of occasions in the continuity of the turnover of the ferro business from Apex to Mr. Leir.

And then we did not produce low copper grained aluminum, the last paragraph in the letter.

Q. Did this cooperation with Mr. Leir take the form of revealing to the Vanadium Corporation of

(Testimony of William R. Bayer.)

America the sources of supply you had for vanadium oxide and the contractual arrangements you had in that connection?

A. To my knowledge we did not reveal it to them.

The Court: What is this exhibit you hold in your hand?

Mr. Alioto: This is an exhibit that Mr. Gustaf Laub wrote, special reports he wrote, one of them to Mr. Bransome, the President of the Vanadium Corporation of America. They are all interoffice memoranda between these two men about Mr. Laub's negotiations with the Vice President of this company. Suppose I read these exhibits so the jury will know exactly what we are speaking of.

The Witness: Did you say Vice President in charge of sales?

Mr. Alioto: He was a Vice President.

The Witness: Yes.

Q. (By Mr. Alioto): As a matter of fact, Mr. Christiansen was the man who went to Washington in connection with your allocation difficulties in January and worked them out successfully?

A. That one occasion, yes.

Mr. Alioto: We will go over part of this. The first one is as follows, and this is Mr. Gustaf Laub.

Q. Do you know Mr. Laub, by the way?

The Court: Just a minute. If you are going to read the exhibit, read the exhibit and don't interrupt.

(Testimony of William R. Bayer.)

Mr. Alioto: I will read the exhibits hurriedly and then we will go on:

"On February 20, 1942, Mr. Laub in a special report wrote as follows re Apex Smelting Company in Chicago, Illinois:

"Mr. Christiansen, Vice President of the above company, whom I have known slightly for sometime, called on me stating that they have decided to go out of the Vanadium business and that they had certain equipment and some small stock of Oxid on hand that they would like to dispose of if we were interested. [1468]

"He did not have an actual list of the equipment nor of the raw materials they have on hand but from the figures he had, it looked as though they have close to 50,000 pounds of Vanadium Pentoxide containing between 78/87% V_2O_5 and about 40,000 to 50,000 pounds of Magnesite.

"I told him that we might be interested in the Vanadium Oxide and possibly the Magnesite and some of the equipment which included jaw crushers and miscellaneous equipment. He promised to obtain from their Chicago office an actual complete list of the equipment they have to offer as well as the quantities and grades of Vanadium Oxide and Magnesite and to deliver these to me the early part of next week. I told him that I would then refer this to the proper parties of our company and that we would probably be interested in the Vanadium Oxide and the Magnesite if their prices were right. He stated that they would be reasonable

(Testimony of William R. Bayer.)

in their prices and did not expect to make a profit.

"Mr. Christiansen further stated that they had been contemplating going out of the Vanadium business for sometime and their definite decision was reached for two reasons. First, that they had a fire in this department of their plant and secondly, that the sales contract which they had with Mr. Leir, President of the [1469] Continental Ore Corporation had not worked out very well. Mr. Leir was getting a fifty percent cut on the profits. Mr. Christiansen also stated that they had some agreements with the Shattuck Chemical Company and Niley & Smith for deliveries of Vanadium Oxide and that he would also look into this and advise us of the status thereof." [1469-A]

Then the second one, on March 14, 1942, Mr. Gustaf Laub to Mr. E. D. Bransome, the president of the Vanadium Corporation of America:

"Inasmuch as the following information has been conveyed verbally, this memorandum therefore is for our records."

The Court: Now, who is writing this?

Mr. Alioto: Mr. Gustaf Laub, Vice-President of the Vanadium Corporation of America, to Mr. E. D. Bransome, the president of that company, relating to the Apex Smelting Company of Chicago, and this is dated March 14, 1942.

The Court: All right.

Mr. Alioto: "Inasmuch as the following information has been conveyed verbally, this memorandum therefore is for our records.

(Testimony of William R. Bayer.)

"With reference to the writer's memorandum of February 20 (that has just been read), advising that Mr. Christiansen, Vice-President of the above company, had informed us they were going out of the vanadium business and had offered us their stocks of vanadium raw materials, equipment, et cetera, as I have not heard further from Mr. Christiansen in this regard, I had Larry Johnson casually contact him by phone and tell him that I had not received the information that he promised to send, and as a result [1470] Mr. Christiansen phoned the writer and stated that in going into the matter further they had run into some legal difficulties. Mr. Leir, President of the Continental Ore Corporation, with whom Apex had an agreement to furnish their entire production of vanadium, he acting as sales agent, objected strenuously to their breaching their contract, and upon referring the matter to their counsel, Apex were advised that Mr. Leir had a strong case against them and to make the most satisfactory arrangement with Mr. Leir they could. This resulted, Mr. Christiansen advised, in Mr. Leir putting a proposition up to them that they would produce vanadium at full capacity for a period of three months, after which time he would take over their equipment and raw material contracts and produce the material himself. Mr. Christiansen therefore advised that they felt they would be obligated to produce at maximum capacity for a period of three months and had decided to proceed on this basis

(Testimony of William R. Bayer.)

but that they had not come to a definite conclusion about turning over the equipment and raw material contracts after that time.

"The contract with Mr. Leir, he said extended over the balance of the calendar year. In the event that the second part of Mr. Leir's proposition does [1471] not go through, Mr. Christiansen stated that they still propose to offer us such raw materials as they had available as plant equipment.

"The above information at your suggestion was conveyed by phone to Mr. E. K. Jenks, Assistant Chief of the Vanadium Branch, War Production Board."

The final memorandum, dated April 14, 1942, is written by Mr. Gustaf Laub, the Vice-President of Vanadium Corporation, and it is entitled, "Special Report, Re Apex Smelting Company, Chicago, Illinois, Mr. Edward S. Christiansen, Vice-President" of that company:

"With reference to the writer's previous report of February 20, Mr. Christiansen of the above company called again yesterday, stating that they had now gotten their vanadium situation straightened out, and that they had definitely concluded to dismantle their vanadium plant at once and go out of the vanadium business permanently. The equipment from their plant is now for sale. He doubted whether there would be much of the equipment that might interest us, but said that the list of same would be sent to us promptly.

"Mr. Christiansen stated that they had finally

(Testimony of William R. Bayer.)

been able to come to an agreement with Mr. Leir of the Continental Ore Corporation with whom they had 14-year contract to cancel the same. [1472]

"By doing so it was necessary for them, he said, to produce only enough ferro-vanadium to complete the two open orders which Mr. Leir had on his books and to continue producing Van-Ex (a mixture of oxygen and aluminum which they had been supplying) up through June, after which they would be completely out of the vanadium picture.

"Mr. Christiansen further stated that their contract and dealings with Mr. Leir have not proven at all satisfactory to them and they regretted ever having gone into the business.

"He further stated that he would furnish us with the names of all of their suppliers of ores and oxide, the principal ones apparently being Shattuck Chemical Company and Nisley and Wilson.

"He appeared to be most anxious that we obtain these raw materials rather than the possibility of Mr. Leir's getting them and continuing in the vanadium business.

"We had an interesting discussion concerning low copper grained aluminum which they had produced and released with necessary priority approval, and I therefore turned him over to our purchasing department with regard to this item."

Q. Now, Mr. Bayer, do you know what association if any [1473] was had the purchasing department of the Vanadium Corporation in connection with this matter?

(Testimony of William R. Bayer.)

A. Well, about the grained aluminum——

Q. Yes.

A. No, I do not. We did not produce grained aluminum at that time. During that time we did sell them, sell Vanadium Corporation, some dioxidizing ingots but not grained aluminum.

Q. There was a mistake then in the name of the aluminum? A. I don't know.

Q. But it was right at this time that you sold them this product, wasn't it?

A. I don't know if that is the date. In that general period.

Q. And prior to t s time you did not sell them that product, did you? A. No.

Q. This was the first sale you made to them of that product?

A. It was after that contact.

Q. And how long did you continue selling them after this contact, as you call it?

A. A very short time.

Q. Well, how long is a "short time"?

A. I don't think it was during that year or shortly after——

Q. You sold them for a year? [1474]

A. I don't think it was even a year.

Q. All right, do you know how long?

A. It was less than a year.

Q. Do you know what quantities did you sell them?

A. Very small quantities. I think our total sales to Vanadium Corporation before we took over Na-

(Testimony of William R. Bayer.)

tional was roughly in a max of about 150 to 200 thousand pounds over a period of something like six or seven months.

Q. All right. So you sold them then up to 200 thousand pounds?

A. Over six or seven months.

Q. Over six or seven months after April of 1942? A. That is correct.

Q. And what was the price of this material?

A. About 13½ cents a pound. It was OPA ceiling price.

Q. OPA maximum? A. That's right.

The Court: Well, after you operated for this 90 days maximum operation, that is when you disposed of the property?

A. Well, the only property we actually disposed of, your Honor, was the magnasite, which was this refractory from which we built the crucibles; the other equipment we found we could not dispose of at that time, and I could not trace—I tried to a few days before I came here. [1475] I know a lot of it we abandoned and took a tax writeoff, tax loss on abandonment.

The Court: Did you offer to sell it to Mr. Leir?

A. Yes, we tried to sell it to Mr. Leir, and in fact, I believe Mr. Leir tried to sell it for us.

In other words, there is some correspondence floating around.——

The Court: Was he able to buy it himself or for some client of his?

A. He did not care to buy it himself, evidently,

(Testimony of William R. Bayer.)

because we did offer it to him but he tried to sell it to—— I know there was a jaw-crusher which was the principal piece of equipment from the point of view of cost, of single cost equipment, and I know he had somebody in New Mexico he was trying to sell it to, and a couple of others, but I know—— But what I have reviewed, we were not able to effect a sale. This extended for a period at least into the late fall of that year.

The Court: Then how did you finally dispose of this equipment?

A. Well, I said a lot of it I know we abandoned, just let it go by default, we couldn't get rid of it, and we took a—in the year 1943, I believe, we took a tax writeoff as abandoning it for the remaining value on our books.

Q. (By Mr. Alioto): Did not Mr. Leir at the [1476] time suggest that you not sell any equipment and simply keep it stored in the plant so as to go back into production when things may not have been so hard?

A. I think there was such a suggestion made.

Q. Yes. And you declined that suggestion because you had promised the Vanadium Corporation of America that you would stay out of the vanadium business permanently, isn't that a fact?

A. No.

Mr. Holland: I object, your Honor. There are two letters in evidence which specifically state, and I read them this morning, what happened in that respect.

(Testimony of William R. Bayer.)

Mr. Alioto: This is cross-examination, if your Honor please.

The Court: I understand, but your question is leading and suggestive.

Mr. Alioto: I thought I could do that on cross-examination, if your Honor please. You certainly permitted defense counsel.

The Court: Yes, on what the witness testified to, you can do that, you can lead that much.

Go ahead.

Mr. Alioto: That is what I thought I was doing.

Q. Isn't it that fact that you did promise the Vanadium Corporation of America to go out of the vanadium business permanently? [1477]

A. No, we never made that promise.

Q. Didn't Mr. Christiansen tell them that, that they were going out of the business permanently?

A. I have no information as to what he told them other than the memo which Mr. Laub apparently wrote as a recollection of his conversation with Mr. Christiansen, so I don't think I am competent to testify as to that.

Q. All right, sir. I think that's right.

Now then, where it states that "He appeared to be most anxious that we obtain these raw materials rather than the possibility of Mr. Leir's getting them and continuing in the vanadium business," do you recall a conversation with Mr. Christiansen at this time, seeking to elicit information from you as to the status of your raw materials contracts with Nisley and Wilson and Shattuck?

(Testimony of William R. Bayer.)

A. No, I do not. And, as I pointed out before, that is contrary to the actions that I was taking at that time in trying to facilitate the turning over —in fact, I was even filing the priority forms for Mr. Leir at that time so he could get the right to receive this material, so it seems very much contrary to what we were doing.

Q. Well, did you folks in fact tell the Vanadium Corporation of America what your sources of supply were?

A. I have no knowledge of what Mr. Christiansen did in [1478] his conversation, as I said, with Mr. Laub. But I know there was no, to my knowledge, no communication with Vanadium Corporation, to my knowledge.

Q. You mean other than by Mr. Christiansen?

A. Other than this memo, which is Mr. Laub's recollection of his conversation.

Q. And Christiansen was your vice-president?

A. That is correct. I say, that's the only fact I know about it, is this memo of Mr. Laub's, so, as I said before, I don't feel I am competent to testify.

Q. Mr. Christiansen is living, isn't he?

A. Yes.

Q. Mr. Lippa is living and Mr. Singer is living; they are all living?

A. That's right, they are all living.

Q. Where's Mr. Christiansen living now, incidentally?

A. I do not know. He is not connected with our company.

(Testimony of William R. Bayer.)

Q. Mr. Lippa and Mr. Singer are, however?

A. That is correct.

Q. Now then, would Mr. Christiansen in the normal course of his duties have known about your raw material contracts?

A. In the normal course of his duties he would not have been concerned with our raw material contracts.

Q. So he had to get that information from——

A. Wait a minute, let me finish, please. [1479]

Q. Go right ahead, sir.

A. But being a small company, my office was here, his office was there, we ate lunch at one table, everything was open, he would in conversations and discussions around the place he picked up or knew a lot of information or bits of information about the various things doing.

Q. Did Mr. Christiansen ever tell you that he wanted some information about your suppliers to give to the Vanadium Corporation of America?

A. I imagine that if he gave—I mean, I don't recollect directly—at least, it's one year ago or more——

Q. Yes.

A.——but if he gave a list of things that we had to sell to Vanadium Corporation, I am certain that I was the source to get it from, so I would assume that I prepared any list that he may have turned over to Vanadium Corporation.

Q. Including a list of your raw materials, is that correct?

(Testimony of William R. Bayer.)

A. If there was such a list given of raw materials which we wanted to dispose of.

Q. Well, there is a statement here made that you had approximately 50,000 pounds of vanadium oxide. Would Mr. Christiansen have gotten that from you?

A. He would have gotten that information from me.

Q. He would have received it from you? [1480]

A. That's right.

Q. Now, if at the time he received it from you, did he tell you that he wanted to pass it on to V.C.A.?

A. I said he would have received it from me because I was the source to get it. I did not say that I recall giving it to him, so I cannot recall what you are talking about, because, as I said, it was—that was '42 and this is '58——

Q. I understand that, sir.

Now, was it true that in 1942 you consulted your attorneys with respect to your contract, the Apex contract, to produce ferro-vanadium?

A. In 1942 and in other years, yes, right along there.

Q. But this statement that you had consulted your attorneys——

A. I mean, if——

Q. That statement was true, wasn't it?

A. Read the statement.

Q. The statement is this, "Upon referring the

(Testimony of William R. Bayer.)

matter to their counsel, Apex were advised that Mr. Leir had a strong case against them."

A. We weren't advised that he had a strong case. We were advised that——

Let me start this way. I have been with the company 21 years. Outside of my testimony in this case, I have never been in court in conjunction—or, the company has [1481] never had a law case. Our counsel's philosophy is: Stay out of court; don't do things that lead to a law case. And their advise was: You're better off producing for a couple of months and make a settlement than dragging it through a law court.

Q. Mr. Leir——

A. And Mr. Leir had threatened in some of the conversations to hold us to the contract and sue.

Q. Did he say "sue" or simply "to hold you to the contract"?

A. Hold us to the contract, and our attorneys advised us we are better off if we can make a settlement, to do it.

Q. Actually Mr. Leir didn't sue you, did he?

A. No, he never did.

Q. When was it that you finished setting up your plant for the production of ferro-vanadium?

A. Explain that question.

Q. Before I leave that subject, let me withdraw that question, first of all.

Do you have in your folder any correspondence with the Vanadium Corporation of America con-

(Testimony of William R. Bayer.)

cerning the sale of magnasite brick from which you made your crucibles? A. No, I do not.

Q. Do you have any invoices or anything like that?

A. No. My correspondence—let me qualify this again, and I don't know if I am treading on wrong ground here or not. [1482]

Q. If you are, there will be plenty of objections, don't worry about it.

A. But back in about 1944 the Department of Justice came in and went over our files, extracted some papers, and from then on God knows where half our files are.

Q. Well, you have looked for it?

A. So I have searched—— What I did before I came here, I searched the very sketchy files I had in my office, the balance of files, which I believe is the only part of the files that I turned over to the Department of Justice back in '44 or '46 which came to my office, and I shipped out to San Francisco, for the benefit of you and Mr. Holland—I shipped to Mr. Holland with the understanding you were to both go through and get any information. Those files were a jumbled mess. I didn't actually have the time to look at them. Then in the last week or so—I essentially have here a file that I had that covered contract negotiations with Mr. Leir, my priority applications—in other words, discussing with the War Production Board on priorities, and some accounting schedules that I had

(Testimony of William R. Bayer.)

in my accounting files, and I went over my accounting schedules for some of those years.

Q. Well, do you have any actual applications to the War Production Board?

A. I have those all here. [1483]

Q. May I see those, please?

A. Oh, absolutely.

Q. In connection with the examination this morning.

A. Oh, absolutely. I brought everything I thought would be pertinent.

Q. Thanks.

A. Let's see (witness examining documents).

(Handing counsel.) I have more to come. Here (handing counsel). You want to take a look at this? I have got more to come (examining documents).

(Handing counsel.) There is another one.

Q. Let's see that.

A. Here's another one. I have some more correspondence. You want to see that (handing counsel)—you're welcome to that, too. Those, I think, were the priority applications.

Q. Yes.

A. January, February——

Q. These are the priority applications that you processed with the government and went right through, is that correct?

A. Why, you say "went right through," what do you mean by that?

Q. You eventually——

(Testimony of William R. Bayer.)

A. Eventually we got those requests granted. That has our inventories, statistics, our receipts and so on, and from that—that's the only source I had to build up any information [1484] as to what we received, produced and sold on.

Q. Now, do you have with you any accounting schedule that shows how much you spent in putting in the equipment in the plant in 1939?

A. No, I do not have.

Q. Can you estimate for us how much you spent in putting in the equipment to produce ferro-vanadium?

A. I don't want to be held to this figure, but my estimation—and there I am not counting our building which existed, or our building changes—was some place in the vicinity between 30 and 40 thousand dollars, but that is an estimate.

Q. You did produce a good quality ferro-vanadium, didn't you?

A. I don't think I am competent to testify as to that. I know that we had repeat orders from some customers.

Q. In other words, the steel companies continued to buy your ferro-vanadium after the first orders?

A. We had a number of orders from two or three companies.

Q. Now, then, as a matter of fact——

A. Let me put it this way: There was limited distribution among two or three companies.

Q. As a matter of fact, you applied to the government for a letter stating that your vanadium

(Testimony of William R. Bayer.)

was of sufficiently good quality to be sold to the military service and you got such a letter, didn't you? [1485]

A. Not to my recollection.

Q. You don't know anything about that letter from the Navy Department?

A. No, I do not. So you probably know more about my files than I do at this moment.

The Court: How long did you produce ferro-vanadium after you started?

A. We started, according to my notes here—our first commercial production—we had run for about a year in the laboratory production, trying to learn the best way of making it, but our first commercial production was in April, 1940, and we discontinued production some time in March, 1942. So that's roughly two years.

The Court: Was it profitable those two years?

A. No, it was not. We lost money as per the accounting schedule that I have here with me.

Q. (By Mr. Alioto): Didn't you make money in 1942? Didn't you begin to make money in 1942, sir?

A. This accounting schedule shows there was a profit from January 1, to April 30, 1942, of $2,842.

Q. That is when you went out of business.

A. Yes, partly. I would say that was essentially not in the production of ferro-vanadium, but in the sale of vanadium pentoxide as Van-Ex. In other words, we did not make any profit out

(Testimony of William R. Bayer.)

of the manufacturing operation. We merely bought something and sold it at a higher price.

Q. In that connection would you be good enough to tell us how many pounds were handled in the 1942 period when you made that profit?

A. Yes, I will be glad to. I can't tell you the division between ferro-vanadium and Van-Ex.

Q. I might say, sir, the accounting schedule you hold in your hand we have in evidence. It is already in this case. A. O.K.

Q. But can you tell us what you purchased?

A. If you will have one minute of patience.

Q. I certainly shall.

A. I have it some place here.

In 1942, between January 1st and April 30th, we used 98,112 pounds of V_2O_5. Now, the amount that went into ferro-vanadium and the amount that was re-shipped as Van-Ex, as is, I have no breakdown between those two. But the quantity was 98,112 pounds of vanadic oxide that was available to us and used. And we also had 1,134 pounds of ferro-vanadium in inventory on January 1st that was shipped between then and April 30th.

Q. May I see the figures you have?

A. Right here. This is just the work sheet that I have abstracted from these various documents which I gave you. I was just trying to summarize this information.

Q. (By the Court): The year 1941 you say you lost money?

A. We did, sir. This is the statement of net

(Testimony of William R. Bayer.)

receipts—parenthesis, net receipts—as defined in our contract with Brougnod, with the French concern of the thermit department, as certified by Alexander Grant and Company, certified public accountants, which shows that for the period July 1, 1938 to April 30, 1942 we lost $8,420.60.

In the year 1941 we lost $538.24.

In the four months of 1942 we made $2,842.

And in the period July 1, 1938, which is the original contract date, I imagine, through December 31, 1940, we lost $10,725.01.

Q. (By Mr. Alioto): You actually did not start producing until April of [1488] 1940.

A. April of 1940.

Q. Yes.

A. But during that time, subsequent to that, we were attempting to produce, attempting to learn how to produce, and unfortunately, because of Mr. Hitler, we apparently did not get the technical help that we had expected in 1938 to set us up into production. Remmeber, in 1939 the war started.

Q. That was September, 1939, that the war started. A. That is right.

Q. You did not lose contact with the French until June, 1940, did you?

A. But we never did get any technical help from them.

Q. You ultimately produced a ferro-vanadium that was a satisfactory product.

A. That is right. But we had to learn how to

(Testimony of William R. Bayer.)

produce that by our own experiments, rather than by having somebody who had prior knowledge come over and tell us how to do it.

Q. In connection with the statement of your corporation on December 13, 1941, to the Defense Plant Corporation,——

And I see again, if your Honor please, the document from which the witness is reading is in evidence, so that is part of the record in this case.

A. What is it you said?

Q. I say, in connection with the statement of your [1489] corporation on December 13, 1941, to the Defense Plant Corporation, saying:

"Our plant for the production of ferro alloys was built in 1939, and since then we have been producing an excellent quality of ferro-vanadium which has been well received; however, we cannot make use of all our production facilities due to the lack of raw material, which is fused vanadium oxide,——"

on the assumption, Mr. Bayer, that you had been able to make use of your production facilities, and that you did not have a lack of raw material, as you have called it here, do you think you would have made a profit in 1940, 1941, and 1942?

A. 1940, 1941, and 1942?

Q. You have produced to your capacity?

A. No.

Q. Why not?

A. Because during the period of 1940 we had available to us very adequate supplies of raw

(Testimony of William R. Bayer.)

material. In fact, so adequate that Mr. Leir was exporting quantities of it that we could not use in our plant. But we still had not solved, even though we had made our first production in April of 1940, we had not solved our production difficulties. We still did not——

Q. (By the Court): When did you solve them?

A. I don't think we solved our production difficulties until sometime late in 1941, what you might call completely solved them. But in 1940 we didn't start in real production.

Did you take that production sheet that I showed you, those statistics, or did I put those back? That little work sheet of mine.

Q. (By Mr. Alioto): This one?

A. No: that little 8½ by 11 sheet. It went further than I thought.

We produced in 1940 only 26,000 pounds of ferro-vanadium.

In 1941 we produced 94,000.

Now, we were not held down to 26,000 pounds in 1940 because of lack of available supply. We had not solved our production problems. I believe it was only in the last few months that we produced to any great effect, that we had any steady production.

Q. Didn't you, in 1940, make a request to the Vanadium Corporation of America to give you a regular supply of vanadium pentoxide?

A. I don't know offhand right now.

(Testimony of William R. Bayer.)

Q. I will show it to you so there will be no question about it.

A. I am not arguing with you. [1491]

Mr. Holland: I think he already testified.

Mr. Alioto: I know he did. But now he has just said he had plenty of it.

The Witness: I said there were available supplies.

Mr. Archer: He said Mr. Leir was re-selling it abroad.

Q. (By the Court): That is when you stated you sent out letters to these various companies?

A. No, that was sent out in 1938, when we sent that broad mailing list letters.

Q. (By Mr. Alioto): You sent one in 1940 to the Vanadium Corporation of America. Were you just playing games with them, or did you mean it?

A. I couldn't tell you at the moment.

Mr. Alioto: May I have Exhibit 63, please?

This letter is dated March 11, 1940, to the Vanadium Corporation of America (reading):

"Please be good enough to let us have your very best price on quantity lots of vanadium pentoxide crushed to one-quarter inch and under. We desire this material for domestic consumption. Your immediate response would be very much appreciated."

And they don't answer the letter. [1492]

Q. (By Mr. Alioto): And you write again and say (reading):

"We enclose copy of a letter written to you on

(Testimony of William R. Bayer.)

March 11th to which we do not seem to have received a reply. This may have been overlooked, and we would appreciate hearing from you."

Signed by Mr. Lippa.

Finally, on April 20, 1940 (reading):

"In response to your letter of April 8th enclosing copy of your letter of March 11th, which apparently went astray, would advise our position is such that we have no material to offer you at the present time."

Now, do you recall making this request for supplies from the Vanadium Corporation of America?

A. I don't recall, but now that I see the letters, evidently we did.

Q. Did you also——

The Court: Let him answer the question.

Q. (By Mr. Alioto): Go ahead, sir.

A. He asked me a little sarcastic question before—were we playing games? I don't call this playing a game. We wrote a letter, evidently, to the Vanadium Corporation. Remember, as I said, there were supplies. We never enter into [1493] any long term contracts.

Now, I am in the aluminum business. Whether there is adequate, short supplies, or otherwise, of aluminum, we buy from 2,000 sources a year, 3,000 sources. If there are 1,000 sources making vanadium, or tin, we like to be buying from all of them; we don't like to be tied down to a source.

So in the same manner, if at this time, even though we were buying from a source, or two

(Testimony of William R. Bayer.)

sources—say three sources—here is another source. We would contact them to find out if they had material available, and at what price.

Remember, at the same time that this letter was written we were having difficulty, as I said, in making up the proper mix to get optimum recovery, for to our knowledge we wanted to find out—and I am taking Vanadium Corporation as any one company—or it might be Jones Company—had a source which would give us ferro-vanadium, which would give us better recoveries. We were stumbling in the dark in this business. So I didn't like your inference.

Q. Well, then you tell us, so we can get this subject covered finally, in your letter to the government in December, 1941, when you say, "We cannot make use of all our production facilities due to the lack of raw materials," would you tell us to what period of time that refers? You wrote that letter, didn't you, which is Plaintiffs' Exhibit 144 in evidence?

A. I saw some of this. This letter was written, as I [1494] see from here, at the suggestion of Mr. Leir.

Q. Yes, I think we have already established that.

A. And as I understand, the Defense Plant Corporation was setting up a new plant for the future in Monticello.

Q. Yes.

A. And it was our — Mr. Leir's suggestion,

(Testimony of William R. Bayer.)

which we followed then, to make application for the future to get some material from that plant.

Q. Yes.

A. Now, the figures here——

Q. You did write that top letter to the government, didn't you, Mr. Bayer? Is that established in this record?

The Court: He covered all of that this morning, didn't he?

Mr. Holland: Yes, he did.

The Court: He got a form letter from Mr. Leir, and he prepared the letter. He didn't follow it exactly.

The Witness: We modified that letter.

Q. (By Mr. Alioto): Yes. Now, my question is, when you made the statement there that you could not operate for lack of the raw materials, to what period of time were you referring?

A. This does not state to what period of time, and I couldn't testify today what period of time. This seems to be a very broad type of statement which you would write to create [1495] an interest at this time.

Q. You mean the statement was not true when you wrote it?

A. I didn't say it, sir. I said it is a broad statement.

Q. Well, broad or not, was it true or wasn't it? You wrote the letter. Was it true or wasn't it?

A. It was true at times. I have told you that before.

(Testimony of William R. Bayer.)

Q. (By the Court): What time was it now?

A. There were periods when we didn't have—when we had to close down. We had an irregular supply of ferro-vanadium. We never built up—we tried to regulate our purchases in accordance with the orders we received, so that we would not at any time have substantial quantities of ore and no sales orders. We never did receive enough backlog of sales orders to enable us to buy large quantities and stockpile ore. Therefore, most times we were not dependent on receiving ore every week, or every two weeks, or every month, to keep on running. Now, when any of our sources—we had three or four—for various reasons—and I am familiar with one—Shattuck broke down for awhile; something happened to their production—and we didn't get this continuity of shipment, and we were in trouble. If we had had enough orders on hand to enable us to build up a stockpile of raw material to keep a balanced position, we then could be able to continue and face any sudden cut-off because of trouble on our suppliers' [1496] parts.

Q. During this period was there available vanadium oxide that you could have purchased had you done so?

A. Well, yes, because we did—or, let me say Continental Ore did buy through us substantial quantities of vanadium oxide throughout this period which they exported.

Q. (By Mr. Alioto): In 1941 they exported?

A. I didn't say in 1941. I said throughout this

(Testimony of William R. Bayer.)

period. I am talking of the period of operations from which a stockpile could have been built up.

Q. Wasn't the export ban in July, 1940?

A. I can't tell you the date.

Q. What is the date of the letter you are reading?

A. What period of time are we talking about?

Q. (By the Court): We are talking about the period you were operating under this contract with Mr. Leir.

A. That is the period 1938 to 1942. During that period there was vanadium oxide available to us that we did not purchase, but exported.

Q. (By Mr. Alioto): In connection with that letter, so we can get this record clear, where you say you could not operate to capacity because of a lack of raw materials, what did you mean by that? [1497]

The Court: He has explained that. It is clear to the Court, and I think to the jury.

Q. (By Mr. Alioto): All right, let me ask this, then: In connection with your letter of December 26, 1941, to the Office of Production Management, you say at that time (reading):

"Our capacity for the production of this material is about 50,000 to 60,000 pounds of V contained per month, but at the present time we are producing only a fraction of this capacity due to lack of raw material."

Was that statement true when you made it? The present time being December 26, 1941.

(Testimony of William R. Bayer.)

A. To my knowledge on December 26, 1941, we were not in production at all, because we were just rebuilding our plant on that date—still rebuilding our plant after the fire.

Q. Yes. But in that letter will you tell us, then, what you mean "at the present time," when you write a letter in December, 1941, when you say "at the present time we are not operating at capacity because of a shortage of raw material"?

A. At the present time—I am talking of this general period.

Q. 1941? A. At this present period.

Q. 1941? [1498]

A. Two months, three months, four months, I don't know; "at the present time"—we were talking here about a plant—to get material for a plant which was going to have future operations. So we are talking about not a date, not today, but about a distant date, and at the same time we are talking about a broad "present time."

Q. In that broad present time there was a lack of the raw material, is that correct?

A. That is correct.

Q. Finally, do you recall there was a time when your company objected to Mr. Leir selling ferrovanadium below the price of the Vanadium Corporation of America? A. No, I do not.

Q. Did you participate in any negotiations inside your company, or with Mr. Leir, in respect to that matter?

A. Not to my knowledge. I know we objected

(Testimony of William R. Bayer.)

to selling vanadium, ferro-vanadium, at prices which would not give us sufficient profit margin.

Q. Don't you recall exacting from Mr. Leir a promise that he would not sell below the Vanadium Corporation of America price?

A. No, I do not.

Mr. Alioto: We have no further questions, if your Honor please.

The Court: We will recess at this time.

(Short recess.) [1499]

Q. (By Mr. Holland): Mr. Bayer, I hand you a letter from Apex Smelting Company to Vanadium Corporation dated April 23, 1942, to which is attached a list of equipment, and ask you if you can identify it.

A. This is a list of equipment that we did have in the ferro department.

Q. With prices?

A. With prices, yes.

Mr. Alioto: No objection.

Mr. Holland: Offer this as Defendants' Exhibit next in order.

(Letter, April 23, 1942, Apex to Vanadium Corporation, with enclosure, received in evidence and marked Defendant V Exhibit 2-H.) [See Book of Exhibits.]

Mr. Holland: This is a letter of April 23, 1942, from Apex Smelting to Vanadium Corporation, and says:

"Gentlemen:

"In accordance with conversation which our Mr.

(Testimony of William R. Bayer.)

Christiansen had with you we are pleased to enclose an equipment inventory of our ferro-alloy department which we desire to sell. This list does not include all the equipment used in that department since we find use for the rest of it in our aluminum production. We would appreciate very much if you will advise us by return mail whether this will be of any interest to you. [1500] We are greatly in need of the space and therefore are anxious to move these items as quickly as possible.

"Incidentally, if your Chicago office would like to inspect this material, we want you to know that you are welcome to do so."

And attached is a list of eight items of equipment with new values placed opposite.

Q. Mr. Bayer, is this the equipment that was first offered to Mr. Leir and which he refused to buy or did not wish to buy?

A. I can't say offhand.

Q. And this is the equipment that you had for sale from your ferro department?

A. That is right, and undoubtedly that is the equipment we discussed with Mr. Leir. Mr. Leir, knowing our plant and our equipment, was familiar with the equipment and what we had there.

Q. And there was in evidence this morning an exchange of correspondence in which Mr. Leir asked you to store it for him and you said you didn't have the space? A. Yes.

Q. And at that time he said he didn't wish to buy it, is that not correct?

(Testimony of William R. Bayer.)

A. That is my memory now.

Q. And I believe you testified that the Vanadium Corporation bought none of this equipment and that you were unable to sell it subsequently through Mr. Leir, is that correct? [1501]

A. That is correct.

Q. On cross-examination there was considerable discussion about whether you had enough oxide to operate your plant at full capacity.

Generally speaking, Mr. Bayer, did you have enough oxide during this period to fill the orders which you received through Mr. Leir for ferro-vanadium and other vanadium products?

A. I know of no particular orders that we turned down, unless they were orders for immediate shipment, because of lack of materials.

Q. Do you recall any orders you received which you were unable to fill?

A. Not that I recall.

Q. At the time that you made the decision to go out of business did you have enough raw material on hand to fill all existing orders?

A. Yes, exactly.

Q. Were the reasons that determined you to go out of business the reasons that you stated in your direct testimony this morning?

A. The reasons?

Q. Yes, the reasons set forth in your letter of June 2nd.

A. The reasons set forth in our letter of June

(Testimony of William R. Bayer.)

2nd, plus possibly two other reasons not set forth in that letter.

Q. What are they? [1502]

A. Would be that the space was required, was much more valuable to us for aluminum operations than for ferro-alloy operations, and that the ferro-alloy department had been taking an awful lot of our time, too much a proportion of our time commensurate with the return to the company. In other words, accounting for a very small percentage of our sales in our operation, yet we were devoting an awful lot of executive time to it.

Mr. Holland: That is all.

Cross-Examination

Q. (By Mr. Archer): I don't know whether I understood your testimony correctly this morning or not, but did you say that Apex Smelting Company had made an oral request for vanadium oxide to Electromet?

A. I don't believe I said that. I wouldn't have the competency to testify to that.

Q. Well, so far as you know did Apex request vanadium oxide from Electromet?

A. I do not know offhand.

Recross-Examination

Q. (By Mr. Alioto): Mr. Bayer, it is a fact, is it not, that ferro-vanadium was in critical supply by 1941?

(Testimony of William R. Bayer.)

A. I believe so, from the fact that OPM took it over. [1503]

Q. Sure. You are aware of the fact that you could have sold all the ferro-vanadium you produced, aren't you?

A. At the moment, yes.

Mr. Alioto: No further questions.

(Witness excused.)

Mr. Archer: Your Honor, as my first exhibit I would like to offer the Priorities Regulation No. 1 of the Office of Production Management. I thought it would be appropriate at this time. It is dated August 27, 1941. This is one of the first priority orders and it was what was generally known as the defense order system whereby preference had to be given to defense orders. I offer that as Defendants' Exhibit next in order.

Mr. Alioto: What is the date of that?

Mr. Archer: This is from the Federal Register, and it was issued August 27, 1941, and it appears August 30, 1941.

Your Honor will recall——

Mr. Alioto: No objection.

Mr. Archer: Your Honor will recall that specifically the order which required everything to be under allocation was in December, 1941.

Mr. Alioto: We have no objection.

(Priorities Regulation No. 1, Office of Production Management, received in evidence and marked Defendant U Exhibit 5-O.)

Mr. Archer: (Reading) "Office of Production Management. Subchapter B — Priorities Division. (Priorities Regulation No. 1.) Regulations Applicable to the Operation of the Priorities System.

"The following Regulation is issued by the Director of Priorities to promote the defense of the United States and for the purpose of improving and facilitating the operation of the Priorities System."

Then there are some definitions. I will read what appear to be the pertinent ones.

"(b) 'Defense Order' means:

"(1) Any contract or order for material or equipment to be delivered to, or for the account of:

"(i) The Army or Navy of the United States, the United States Maritime Commission, the Panama Canal, the Coast and Geodetic Survey, the Coast Guard, the Civil Aeronautics Authority, the National Advisory Commission for Aeronautics, the Office of Scientific Research and Development;

"(ii) The government of any of the following countries: The United Kingdom, Canada and other Dominions, Crown Colonies and Protectorates of the British Empire——"

And so forth. Well, I guess I should read them.

"——Belgium, China, Greece, The Kingdom of the [1505] Netherlands, Norway, Poland, Russia and Yugoslavia.

"(2) Any contract or order placed by any agency of the United States Government for material or equipment to be delivered to, or for the account of, the government of any country listed above, or any

other country, including those in the Western Hemisphere, pursuant to the Act of March 11, 1941.

"(3) Any other contract or order to which the Director of Priorities assigns a preference rating of A-10 or higher."

All of these are defense orders.

"(4) Any contract or order for material or equipment required by the Person placing the same to fulfill his contracts or orders on hand, provided such material or equipment is to be physically incorporated in material or equipment to be delivered under contracts or orders included * * *" in the above definitions.

"(c) 'Material' means any commodity, equipment, accessories, parts, assemblies or products of any kind."

* * * * *

"Defense Orders for any Material, whether or not accompanied by a Preference Rating Certificate, must be accepted and fulfilled in preference to any other [1506] contracts or purchase orders for such Material, subject to the following provisions:

"(a) Defense Orders must be accepted even if acceptance will render impossible, or result in deferment of:

"(1) Deliveries under non-defense orders previously accepted, or

"(2) Deliveries under Defense Orders previously accepted bearing lower preference ratings, unless rejection is specifically permitted by the Director of Priorities;

"(b) Defense Orders need not be accepted:

"(1) Delivery on schedule thereunder would be impossible by reason of the requirements of Defense Orders previously accepted bearing higher or equal preference ratings, unless acceptance is specifically directed by the Director of Priorities;

"(2) If the Person seeking to place the Defense Order is unwilling or able to meet regularly established prices and terms of sale or payment, but there shall be no discrimination against Defense Orders in establishing such prices or terms;

"(3) If the Material ordered is not of the kind usually produced or capable of being produced by the Person to whom the Defense Order is offered;

"(4) If such Defense Orders specify deliveries within fifteen days, and if compliance with such delivery dates would require the termination before completion of a specific production schedule already commenced."

Then it provides for assignments of preference ratings, delivery schedules.

Then it says:

"When any Order of the Director of Priorities prohibits or restricts deliveries of any Material, such prohibition or restriction shall, in the absence of a contrary direction, apply to all deliveries made after the effective date of the Order, including deliveries under contracts or purchase orders accepted either prior or subsequent to the effective date of the Order. No Person shall be held liable for damages or penalties for any default under any contract or purchase order which shall result directly or indirectly from his compliance with any

rule, regulation or Order issued by the Director of Priorities."

I believe that states it in substance, your Honor.

As Defendants' next exhibit I offer the Proclamation by the President of the United States done on the 2nd day of July, 1940, regarding export controls.

Mr. Alioto: No objection.

(Proclamation, July 2, 1940, President of the United States, received in evidence and marked Defendant Union's Exhibit F-P.)

Mr. Archer: After a preamble, this Proclamation states:

"Now, therefore, I, Franklin D. Roosevelt, President of the United States of America, acting under and by virtue of the authority vested in me by the said act of Congress, do hereby proclaim that the administration of the provisions of section 6 of that act is vested in the Administrator of Export Control, who shall administer such provisions under such rules and regulations as I shall from time to time prescribe in the interest of the national defense.

"And I do hereby further proclaim that upon the recommendation of the aforesaid Administrator of Export Control, I have determined that it is necessary in the interest of the national defense that on and after July 5, 1940, the articles and materials hereinafter listed shall not be exported from the United States except when authorized in each case by a license as hereinafter provided:"

Then lists arms, ammunition, and then: [1509]

"2. The following basic materials and products containing the same:"
And the one in which we are interested in is "Vanadium."

Your Honor, I have several witnesses here in court now. If you would like to have them all sworn.

The Court: Let them all stand; all witnesses stand and be sworn.

(Witnesses sworn.)

Mr. Archer: Your Honor, we will try to keep these witnesses more or less in order among the defendants, but there will be some interspersed because most of these come from some distance and we are meeting their convenience.

Mr. Archer: As my first witness, I will call Walter Remmers.

WALTER EDWARD REMMERS

was called as a witness by the defendants, and having been previously duly sworn to tell the truth, the whole truth and nothing but the truth, testified as follows:

The Clerk: Will you state your full name?

The Witness: Walter Edward Remmers.

The Clerk: Your address?

The Witness: Wee Burn Lane, Darien, Connecticut.

Direct Examination

Q. (By Mr. Archer): Mr. Remmers, what is your present position with the Union Carbide Corporation?

(Testimony of Walter Edward Remmers.)

A. At the present time I am a vice-president of Union Carbide Corporation and trustee of Union Carbide Educational Fund.

Q. What are your present duties for the corporation?

A. My present duties are largely public relations, more particularly to the distribution of funds, of the educational fund to colleges and universities and the support of higher education.

Q. What positions did you hold with Union Carbide or its subsidiaries during the period 1938 to 1949?

A. In 1938 I was division manager of the Electro [1511] Metallurgical Sales Corporation in Chicago. In 1941 I moved to New York without title. I was not an officer, and continued as an administrative assistant, sales correspondent, and working on special assignments until 1944, at which time I became a vice-president of the Electro Metallurgical Sales Corporation.

In April of 1947 I became a vice-president of the Electro Metallurgical Company and an executive vice-president of the U. S. Vanadium Company.

In the late 1940's, the beginning of 1950, I became president of Electro Metallurgical Sales Corporation and president of the U. S. Vanadium Company.

Q. Will you give us some of your experience and training as a metallurgist prior to the time

(Testimony of Walter Edward Remmers.)

you were employed by any of the Union Carbide companies or any of its subsidiaries?

A. In formal training I did undergraduate work in metallurgy and then did graduate work also at the Missouri School of Mines and Metallurgy, some graduate work at the University of Michigan, and a limited amount in a few other places.

When I left graduate school I went to work for Washington University in St. Louis and taught in the engineering school for four years. I taught a metallurgy course that they call thermo-dynamics, which amounted to a power plants course, in the junior and senior classes, and graduate work.

I then left in the summer of 1928 and went to work for the Western Electric Company, and left there in 1936 as chief of metal manufacturing.

Q. Do you belong to any professional societies?

A. Yes, quite a few of them: The American Society for Metals, American Iron and Steel Institute, American Institute of Mining and Metallurgical Engineers, and more recently I have an honorary life membership in the American Foundry Society.

Q. In my examination, Mr. Remmers, I shall be limiting my questions to the period July 1938 to 1949, if you will bear that in mind.

First, Mr. Remmers, I show you an exhibit which has previously been marked Plaintiffs' Exhibit 42, being a letter from Mr. Leir, dated November 30th, 1943, to the Electro Metallurgical Sales Corporation, a letter from Mr. Leir dated November 17th,

(Testimony of Walter Edward Remmers.)

1943, to the Electro Metallurgical Sales Corporation regarding vanadium pentoxide, and your reply dated November 30th, 1943.

Are you the Mr. Remmers who signed the last letter there on November 30th, 1943?

A. Yes, I am. That is my letter.

Q. So we can complete the file on this, I show you now a letter dated December 2nd, 1943, to the Continental Ore Company, which apparently crossed in the mail the second letter [1513] of November 30th, 1943. Did you send the original of that?

A. Yes, I signed that one as well.

Mr. Archer: I offer the letter dated December 2, 1943, from Electro Metallurgical Sales Corporation to Continental Ore Company as our exhibit next in order.

Mr. Alioto: We have no objection to that.

(The letter referred to was thereupon received in evidence and marked Defendant U's Exhibit 5-Q.)

Mr. Archer: So that this will be fresh in our minds, I would like to read these, your Honor. They are not very long. They have already been read, but this subject matter has not been gone into with this witness.

The first is dated November 17th, 1943, from Mr. Leir to Electro Metallurgical Sales Company, re vanadium pentoxide:

"We would appreciate your offering us 10,000 to 15,000 pounds of V_2O_5 contained in fused vana-

(Testimony of Walter Edward Remmers.)

die acid per month. We would be ready to sign a contract with you for a fixed length of time."

On November 30th, Mr. Leir again writes Electro Metallurgical Sales Corporation, attention Mr. T. F. O'Heir, re vanadium pentoxide:

"We have not as yet received a reply from you to our letter of November 17th, of which we enclose a copy, since the original may have gone astray. [1514]

"We would very much appreciate hearing from you regarding this matter at your earliest convenience."

Mr. Remmers' reply was written on the same day. Apparently those crossed in the mail.

"Continental Ore Company, Attention Mr. Henry J. Leir.

"Gentlemen:

"Referring to your inquiry for fused vanadium oxide, in view of the many uncertainties prevailing at the present time, we do not feel that we should undertake supplying your regular requirements for this material.

"Very truly yours, Electro Metallurgical Sales Corporation, W. E. Remmers."

And then on December 2nd, 1943, Mr. Remmers to the Continental Ore Company, Attention Mr. Henry J. Leir:

"Gentlemen:

"Our reply to your inquiry of November 17th has undoubtedly crossed your letter of the 30th in the mail, and we trust that you have it by this time.

(Testimony of Walter Edward Remmers.)

I wish to apologize to you for the delay in answering your letter of November 17th, which has necessitated your sending a follow-up letter."

Q. Mr. Remmers, what were your reasons in November, 1943, which prompted you to state in that letter that you would [1515] not undertake supplying Continental Ore Company's regular requirements for vanadium oxide?

A. Well, there were several. In the early part of that year there was a decided shortage of vanadium. We had many contractural arrangements with steel companies working on war materials. Although there may have been some indications that the situation was easing with respect to vanadium, we did not know how long that might continue or whether there might be a right-about-face, and we felt we could not jeopardize our entered-into agreement by taking on additional commitments to supply the requirements of the Continental Ore Company.

Q. Were there any other reasons that you had at that time?

A. No. I would say that the uncertainty of the business situation at that time caused us to hesitate to enter into additional commitments.

Q. Had you sold the Continental Ore Company vanadium oxide in that year before?

A. Yes; yes, indeed. We sold them, I think it was, in April of that year.

Q. What had occurred on that occasion?

(Testimony of Walter Edward Remmers.)

A. We received an order for, as I recall, 10,000 pounds of vanadium pentoxide which, your Honor, is the same as vanadium oxide in the form of fused black, and we shipped the material and billed the material at our standard spot price at that time of $1.15 per pound contained vanadium pentoxide in [1516] the fused black. Black contained in those days about 88 percent of oxide. And we received protests, pressures and telephone calls objecting to the price of $1.15 per pound. And there was much conversation and correspondence back and forth. Continental Ore Company finally asked a bank in New York to forward a check to our accounting organization on the basis of $1.10, and after this haggling for a special price we wrote to the Continental Ore Company and told them that we would accept payment at the rate of $1.10, but in doing so we were doing it solely to close the file of correspondence and close that particular matter, and that setting the $1.10 price in this case in no way set a precedent. That was, incidentally, five cents below the ceiling price at that time.

Q. In November of 1943 did you know whether or not the Continental Ore Company had another source of supply of vanadium oxide?

A. 1943? Oh, yes, they must have had, because they had been—we encountered sales of material that they were offering.

Q. At that time the United States Vanadium Corporation was a subsidiary of Union Carbide, was it not? A. Yes.

(Testimony of Walter Edward Remmers.)

Q. And it was operating as agent for Metals Reserve, was it not?

A. That is correct. [1517]

Q. Do you know whether or not they had arranged for the production, or Metals Reserve had arranged for the production of the Nisley & Wilson mill in 1943 to be allocated to the Continental Ore Company?

A. I learned that later. I did not know that at the time. I didn't know that in 1943.

Incidentally, late in 1943 one of the other conditions about which there was some uncertainty was the fact that Metals Reserve was about to go out of business, and that was one of the other uncertain factors that caused us to hesitate in offering a contract at that time.

Q. In November, 1943,—in fact, all of 1943, the Union Carbide, or its subsidiaries, was operating three plants—a plant at Durango, Uravan, and Riffle—were they not?

A. That is correct.

Q. Do you know what operations were commenced prior to November, 1943, in those plants, or in some of them?

A. I think I would have to say all three of them commenced before that time.

Q. Had they undertaken any other contracts prior to that time for the production of vanadium oxide or other products?

A. Oh, yes; yes, indeed. We had a U. S. Army contract at that time.

Q. Of what did that call for the production?

(Testimony of Walter Edward Remmers.)

A. That contract was primarily for the production of [1518] uranium, which occurred in the same ores as vanadium.

Q. Did you also produce vanadium under that contract? A. Yes, we did.

Q. Subsequent to November, 1943, do you know whether Union Carbide ever sold vanadium products to the Continental Ore Company?

A. Yes, we did.

Q. Do you know whether or not you ever entered into contracts with them to supply their full requirements? A. Yes, we did.

Q. How soon after the termination of the Army contracts at the Rifle, Uravan and Durango plants, did you enter into contracts with the Continental Ore Company to supply them with their requirements of vanadium oxide?

A. Those dates are not too clear. The termination of the United States Army contract and the- -

Q. I think it is in evidence, the first contract with the plaintiffs is in January, 1946. And I have here what has been marked Defendants' Exhibit U-S, being an historical outline of the operations for the Army at Uravan, Durango and Grand Junction.

Mr. Alioto: I will object to that, your Honor, as leading the witness.

Q. (By Mr. Archer): I ask you whether that refreshes your recollection as [1519] to when you terminated those contracts.

Mr. Alioto: Go ahead.

A. Yes; yes, it does. This reminds me of the

(Testimony of Walter Edward Remmers.)

dates when the contracts were terminated. They were terminated in late summer and fall of 1945.

Q. (By the Court): To what contracts do you refer?

A. These are the Manhattan District contracts under which the U. S. Vanadium Corporation supplied uranium and vanadium for war purposes. Those are the original uranium contracts. There was no A.E.C. in existence at that time, and they were handled under the name of "Manhattan District."

Q. (By Mr. Archer): Did Mr. Van Fleet have anything to do with determining the sales policy of Electro Metallurgical Sales Company toward the Continental Ore Company?

A. No, no. He was in a separate organization. He was in a mining production organization and had no interest whatsoever in the sales organization.

Q. What about Mr. Burwell?

A. No, Mr. Burwell was under Mr. Van Fleet in the mining company, and so he would have less to do with the question of sales.

Q. Mr. Burwell has testified that at this time he had heard from Mr. Van Fleet that it was your purpose or policy to put the Continental Ore Company out of business in [1520] November, 1943. Was this your purpose or policy at that time, or at any other time?

A. Indeed not. In the fall of 1943 it was our program to produce all the vanadium that we could —supply all of the contractual commitments that

(Testimony of Walter Edward Remmers.)

we had to those steel companies that were producing armament, munitions, and so on.

Q. Mr. Burwell, in his testimony, referred to the following persons: Mr. O'Shea, Mr. Gormely, Mr. Haggerson, Mr. Rafferty, and Mr. Van Fleet. Are any of these persons still alive?

A. Will you please repeat those?

Q. O'Shea? A. O'Shea, Gormely,——

Q. Gormely, Haggerson,——

A. Haggerson, Rafferty,——

Q. Rafferty, Van Fleet.

A. Rafferty, Van Fleet. No, they are all deceased.

Q. There is a letter in evidence that was addressed to Mr. *Roser*. Do you recall when he died?

A. Oh, yes, very definitely. I came to work under Mr. Roser in New York. Mr. Roser died early in 1942, or very late in 1941, not more than a few months after I arrived in New York.

Q. In the period involved in this litigation were you aware of any agreement on the part of Union Carbide Corporation [1521] or its subsidiaries on the one hand and Vanadium Corporation of America on the other to set the price at which vanadium oxide, ferro-vanadium, or vanadium-bearing ore, or any of them, would be purchased or sold to others?

A. Definitely not.

Q. Were you aware of any agreement between Union Carbide Corporation and its subsidiaries on the one hand and Vanadium Corporation of Amer-

(Testimony of Walter Edward Remmers.)

ica on the other hand to refuse to sell to each other's customers?

A. Definitely not. I do not know of any such agreement.

Q. Did you ever instruct anyone not to sell to the Crucible Steel Company during the period 1938 to 1941? A. No, I did not.

Q. Mr. Burwell has testified that in 1940 he arranged a sale of red cake to Vitro Chemical Company, or the Vitro Company, Vitro Manufacturing Company, and that in 1940 he was told by Mr. Dutot that he, Mr. Dutot, wasn't selling to Vitro because Vitro was a V.C.A. customer. Were you familiar with the Vitro Chemical Company?

A. Yes, I know of Vitro, Vitro Manufacturing, of Pittsburgh. [1522]

Q. Do you know what position Mr. Dutot had in 1940?

A. Yes. In 1940 Mr. Dutot was Division Manager of Pittsburgh sales.

Q. Now I show you what has been marked Plaintiff's Exhibit 16, which is the list of purchases of vanadium products to Union Carbide. I invite your attention to Vitro Manufacturing Company. You will notice there are asterisks in the years in which purchases were made. It is a list of sales. Would you indicate the years in which sales were made to Vitro?

A. Sales were made to Vitro Manufacturing in 1938, 1939, in 1940——

Q. Well—— A. ——in 1944.

(Testimony of Walter Edward Remmers.)

Q. Have you had occasion to check to see whether those sales included sales of red cake?

A. Yes, I have.

Q. I show you now a document and ask you whether you can identify that document.

A. Yes, I recognize this document as a page out of a summary that we kept in the Sales Department of sales to individual companies. For each company there was a sheet. This happens to be the sheet that covered the sales to Vitro Manufacturing Company.

Q. Would you indicate what that shows for sales to Vitro in the years 1938, 1939 and 1940?

A. In 1938 it shows a sale of $9,388 for four and one-half—in fact, back in these days they were long tons—four and one-half long tons.

Q. Of what?

A. Of red cake. Red cake is the intermediate form of vanadium pentoxide contained about 86% of the actual oxide.

In 1939 sales of $71,811 for thirty-five long tons.

In 1940 $83,004 for forty and one-half long tons.

In 1944—it goes on down——

Q. Well, that's sufficient——

A. ——for each year thereafter——

Q. So, according to the records of Electro Metallurgical Sales Corporation, you sold red cake to Vitro in 1938 and 1939 as well as in 1940?

A. That's correct.

Q. What is ferro-vanadium used for, Mr. Remmers, if you would be so kind to tell us?

(Testimony of Walter Edward Remmers.)

A. Ferro-vanadium is used only exclusively in the steel industry. A portion of it, a susbtantial portion, goes into tool steels, principally to high speed the tool steels, and the other large use is in the engineering steels, steels for which there are definite physical properties specified by the purchaser.

Q. And by engineering steels, are they sometimes called constructional alloy steels?

A. Yes, constructional alloy steels. They are known by [1524] several names of that type.

Q. Well, now, does all the steel that is produced have vanadium in it?

A. Oh, no. No, none of the steel that we normally would see, oh, in a structure, a building going up, that type of structural steel contains no vanadium. Vanadium is only used in the very limited production of tool steels. Those are cutting tools used principally in the metal working industry, and in these heat treatable engineering steels.

Q. Well, during the period 1938 to 1949 approximately how many significant customers for vanadium products did Electro Metallurgical Sales have?

A. They varied. They varied quite a little over the years. Prior to the war, and the year or two prior to the war, we had probably forty to sixty customers. Then beginning in 1941 the number of customers reached a peak of 123 or 125. And it has tapered off since then, so that we were selling for the period thereafter about 55 to 65 customers,

(Testimony of Walter Edward Remmers.)

largely steel companies, although there were about three or four chemical companies who bought materials from us as well.

Q. Would you describe the sales efforts of which you had knowledge which were made by Electro Metallurgical Sales in regard to vanadium products during the period 1938 to 1949 and what competition you met in this regard?

A. Well, the obvious sales effort is to call on the [1525] purchasing agent and ask him for the business. That was the first effort. We changed specifications, hoping that we might have some advantage over our competition. It was of only limited value. Some did buy it.

We ran into competition that was rather vigorous. First of all, our competitor, the Vanadium Corporation of America, had been in business long before we had, in the business of manufacturing and selling ferro-vanadium. They even had an advantage namewise. If they got up to where the going was tough, they seemed to remind the purchaser that after all they were the Vanadium Corporation of America, and that made it a little rough going for us. They came out in about '38 or '39 with a handbook on the use of vanadium in steel, a book about, oh, 5/8ths, 3/4 of an inch thick. It was a well prepared and very scholarly textbook on the use of vanadium in steel. They distributed that not only to their own customers but they distributed that to our customers as well.

Then there was a policy on the part of many

(Testimony of Walter Edward Remmers.)

steel companies, and there still is, to divide their business. In other words, they do not wish to align themselves with only one source of supply in the event of many emergencies. Any one of several emergencies could arise, transportation interruptions, storms, power interruptions, strikes, and so on. So, inasmuch as our line of ferro-alloys—not only ferro-alloys but a number of other things that we supply to the steel industry, electrodes and oxygen, the steel companies, in an attempt to divide their purchases and stay in the good graces with all the ferro-alloy suppliers, very frequently would place with the Vanadium Corporation those materials that they could get there, such as vanadium, and place with us the products that Vanadium Corporation did not make. We made a number of them that Vanadium Corporation did not produce.

Q. Did Electromet have warehouses established?

A. That was another move that we made in an attempt to get a jump ahead of our competition; we established warehouses in various locations around the country in order to give the customer a little more prompt delivery, a little more prompt service. We established those in Chicago and elsewhere. We actually moved vanadium from plants in which we did make it and stocked it in locations where we did not make it, in order to provide prompt delivery.

Q. Did Electromet have a service department?

A. Oh, yes, we had quite an extensive service department of technical people who were spending

(Testimony of Walter Edward Remmers.)

full time in melting departments of the various steel companies working with them in the manufacture of steel.

Q. What training did these men have?

A. Well, these men were all technically trained in metallurgy or engineering, in comparable fields. They were all experienced; some were quite expert in their fields. We also [1527] through this service department conducted quite a campaign of advertising of vanadium, vanadium products, and promoting not only with the steelmakers but with the users of steel, trying to encourage them to specify vanadium steels for their particular purposes.

Q. Well, from that aspect what effect did the users of steel have upon the consumption of vanadium—withdraw that.

You don't sell, then, your ferro-vanadium directly to the ultimate user of the vanadium product, I take it?

A. We sell ferro-vanadium and relatively small amounts of black oxide that have been used at times to the steelmaker, directly to the steelmaker. The steelmaker in turn sells his product to the consumer, the automotive industry, for cutting tools, things of that nature. So although we advertised it in the secondary market, we attempted to have people use vanadium steels, we have no direct sales to what we call the secondary market, the users of steel.

Q. And which is the secondary market, the automobile companies, and so forth?

A. The automobile industry, the aircraft com-

(Testimony of Walter Edward Remmers.)

panies; during the period that you speak about very substantial amount of it went into armament and ordnance for defense purposes.

Q. From your experience as a metallurgist and in the vanadium business would you describe some of the problems a newcomer would have had in the vanadium business during the [1528] period 1938 to 1949?

Mr. Alioto: That is objected to, if your Honor please, as calling for the opinion and conclusion of the witness, who didn't try to break into it as a new business.

The Court: Read the question.

(Pending question read back by reporter.)

The Court: Overruled. You can answer, if you know.

The Witness: There are a number of obstacles that a newcomer would have to overcome. Number one is a very substantial investment in milling, that is, the mill that would convert the raw ore as it is dug from the ground into a product that could be converted into ferro-vanadium. That is a very involved process technically and a very costly type of plant to build. One of the other obstacles that would have to be involved, depending upon the type of process that the producer would use, whether he used the alumino-thermic or electric furnace, could involve very substantial amounts of money to provide such equipment.

There is one very basic factor in the production of ferro-vanadium and that is the matter of recovery. When you are using a raw material that

(Testimony of Walter Edward Remmers.)

is as expensive as $1.10 a pound, and unless you have a skilled operator or skilled operators who are able to produce the maximum percentage of recovery, and that is to deliver in the finished product the [1529] maximum percentage possible of the vanadium in the raw material, it is just not economically possible to compete. In that connection, an individual producer of ferro-vanadium not producing any other ferro-alloys again would find it very difficult economically to compete, because it would be necessary to provide equipment that would be used only a part of the total time. The production of vanadium is so small for any one of us, I am sure that if you provided equipment of sufficient size to produce the material on an economical basis it would only be run a relatively proportionate part of the time, you could not run it full time certainly on that basis, the net result is that unless you had a flexible organization where you could use your structures and be crushing other products at the time that you are not crushing ferro-vanadium; or if you could, then you had to have employment for the men that were involved in the vanadium business.

You go one step farther than that. If you had to provide a nationwide sales organization to call on all the steel companies in the United States that were using vanadium, to sell only the one product of vanadium, it soon would become very uneconomical; you couldn't afford to expend the expenses of such selling.

(Testimony of Walter Edward Remmers.)

The Court: Mr. Witness, who were your competitors in that business over this period?

The Witness: Actually our only competitor, that we looked upon as being of real competition, was the Vanadium Corporation of America.

The Court: Were there any others that were engaged in that business?

The Witness: We had heard of the Continental Ore Company attempting to sell vanadium oxide and ferro-vanadium to some of our customers. Their competition was not serious, however. They were not of the magnitude in their sales compared with the competition that we are meeting from the Vanadium Corporation of America.

The Court: We will recess at this time until 9:30 tomorrow morning.

(Thereupon an adjournment was taken until 9:30 o'clock a.m., Tuesday, June 17th, 1958.)

June 17, 1958, 9:30 o'clock a.m.

Mr. Archer: Shall I proceed, your Honor?

The Court: Yes.

WALTER EDWARD REMMERS

a witness called by and on behalf of the defendants, having been previously duly sworn, resumed the stand and testified further as follows:

Direct Examination—(Continued)

Q. (By Mr. Archer): Mr. Remmers, reference has been made in some of the correspondence to a

(Testimony of Walter Edward Remmers.)

vanadium product containing silicon. What was this product?

A. We made a product called Silvaz, and as the name would indicate, it contained silicon, aluminum and zirconium. It was a product that was used to control grain size in the engineering steels.

Q. Did it also have vanadium in it?

A. Yes, silicon, aluminium, vanadium. The "va" stands for vanadium. It took the first letters of the elements—vanadium.

Q. Why was it brought out?

A. About that time grain size control——

The Court: What do you mean by "grain size"?

A. In steel, in improving the physical properties, the [1533] tensile strength, the resistance to impact and the resistance to abrasion, it became quite important to provide a fine-grain size in the steel itself, and in order to achieve those results it was necessary to add certain elements to the steel to produce a very fine grain size. It improved the physical properties, physical specifications.

Q. By "grain size" then do you mean a very reduced element that enters into the steel?

A. That is right. A small amount of an element that produces a very fine crystal in steel, as opposed to something coarser.

Q. (By Mr. Archer): Was it successful?

A. Grain refinement or——

Q. Was the Silvaz successful?

A. Yes, Silvaz did the job, but it was not a successful product for us. The same end result could

(Testimony of Walter Edward Remmers.)

be achieved through the use of aluminium and other cheaper alloys, so that our Silvaz was never used extensively.

Q. In 1946 or at any other time did you instruct Mr. Dutot not to approach customers of Vanadium Corporation of America?

A. No, indeed, I did not. We were trying to sell all we could.

Q. Did you have the conversation with Mr. Burwell in Grand Junction in the fall of 1947?

A. Yes, I did. [1534]

Q. What was the principal subject of that conversation?

Mr. Alioto: The time, place and persons present? May we have fixed the time, place and persons present, if your Honor please?

Mr. Archer: It is in Grand Junction in the fall of 1947.

Mr. Alioto: Who were the persons present?

Q. (By Mr. Archer): Was there anybody present besides you and Mr. Burwell?

A. No. I spent the entire day in Grand Junction. We went out to dinner and we returned to his office and spent the evening together, just the two of us in his office.

Q. What office did he hold at that time?

A. At that time he had the title of vice-president but he had been relieved earlier that summer of all of his operating responsibilities in California, in Nevada, and in the latter part of that summer he had been relieved of all his operating responsi-

(Testimony of Walter Edward Remmers.)

bilities in the State of Colorado, uranium and vanadium.

Q. What was your position at that time?

A. At that time I was executive vice-president of the U. S. Vanadium Company and I also was the vice-president of E. M. Sales.

Q. What was the principal subject of the conversation at this time? [1535]

A. The principal subject of that conversation and the purpose of that particular trip was to discuss with Mr. Burwell his future status with the company.

Q. Without going into that matter at this time or at any other time, did you discuss with Mr. Burwell the subject of limiting the production of uranium or tieing the production of uranium to vanadium?

A. No, just the opposite. We were out to sell all the uranium, to produce all the uranium that we could. Obviously there is a tie-in because they both occur in the same ore, but we were seeking additional contracts and additional production for the Atomic Energy Commission.

Q. Just what activities of a physical nature in regards to your plants were you carrying on at that time?

A. Well, we had—just prior to that time we had started and completed negotiation with the Atomic Energy Commission to supply uranium out of the Rifle plant. We were beginning to rehabilitate the Uravan plant, which had been out of serv-

(Testimony of Walter Edward Remmers.)

ice, and get that back into production for the purpose of producing more uranium.

Q. It is in evidence in this action that during the war period Union Carbide or its subsidiaries had a contract with the United States Army for the production of uranium oxide for the Manhattan Project and for the acquisition of uranium-bearing reserves in the United States. [1536]

Now, during this period, did Union Carbide or any of its subsidiaries have contracts with the Army regarding other aspects of uranium production?

A. Oh, many of them. I say many—probably ten or twelve. We started out with what was known as the S.A.M. Project at Columbia University in New York City. That was the substitute alloy materials, and that was a research group working on the basic principles of the entire program.

We contracted with the Army for assisting in the engineering and the construction of the gaseous diffusion plant at Oak Ridge. That was and still is the big project at Oak Ridge.

We took over from Tennessee Eastman, who started the electro-magnetic separation of uranium. We took over their project and ran it and are still running it.

We took over the National Research Laboratories at Oak Ridge, and operated those and are still operating them.

Incidentally, the electro-magnetic plant has been

(Testimony of Walter Edward Remmers.)

changed in purpose from a separation to a research and development organization.

At Niagara Falls we built and operated in the middle of our electro-metallurgical plant a plant to reduce uranium metal from the oxide.

At Tonawanda, New York, we built a plant to produce and refine uranium hexafluoride, which is the raw material [1537] which went into the Oak Ridge operation, and still is the raw material that was used there.

In Buffalo, New York, we built not one but two plants to develop the barrier, the old-type barrier and the new type, and the barrier is the essential feature of that entire gaseous separation process.

The International Carbon Company developed special grades of graphite for the Hanford reactor.

The Bakelite Division developed—they built a plant and developed special grades of plastic that were used in the production of uranium. All of this, incidentally, for the Manhattan District.

Q. When was the Atomic Energy Commission formed?

A. The Atomic Energy Commission took over from the Manhattan District on August 1st, 1946.

Q. Subsequent to the formation of the Atomic Energy Commission, has Union Carbide Corporation had any contracts with the Atomic Energy Commission for the production or treatment of uranium?

A. Yes, yes. The present contracts are with the Atomic Energy Commission, and as you speak of

(Testimony of Walter Edward Remmers.)

that I am reminded of one other rather important job that Union Carbide did for the Manhattan District, and that was the Union Mines development.

The Union Mines Development Company was a company, a highly secret company organized during the war, at which [1538] time we investigated sources of uranium all over the world.

The Court: With all of these various organizations that you mentioned, was their principal function to deal with uranium?

A. Oh, no, no, sir. Our principal function was to deal with the usual products of Union Carbide—chemicals, carbons, metals, gases and so on—but because of the technical nature of our operations, I presume we were approached by the Army to take on the research project at Columbia University and subsequently to build the K-25, which is the name under which the gaseous diffusion plant was built down at Oak Ridge, Tennessee, and I presume it was because of the know-how and the technical people in the organization that we were approached to do that for the Army.

Q. Mr. Burwell has testified in his opinion the price of ferro-vanadium should have been reduced from the $2.70 range to around the $2.25 range during the period we are talking about in order to increase sales.

In your opinion as a metallurgist and from your experience, would the sales of ferro-vanadium have

(Testimony of Walter Edward Remmers.)

increased if the price had been reduced from the $2.70 range to a $2.25 range?

A. Oh, no. That would not be a substantial enough reduction. It would be necessary to reduce the price of vanadium until it could compete at least with its nearest competitor, [1539] and that happened to be and still molybdenum. Molybdenum was a very much cheaper alloy and in a few cases it would even compete with aluminum.

Q. What was ferro-molybdenum selling for during this period of time?

A. Ferro-molybdenum was selling for 95 cents per pound of contained molybdenum in ferro-alloy.

Mr. Archer: I have no further questions.

Cross-Examination

Q. (By Mr. Alioto): Mr. Remmers, do you know a man named Van Fleet?

A. Yes, indeed.

Q. He was the president of United States Vanadium Corporation at one time?

A. At one time, yes. I know him in various positions.

Q. He was also the chairman of the board of the United States Vanadium Corporation?

A. That is right.

Q. Do you recall approximately when it was that Mr. Van Fleet left the organization?

A. Yes, Mr. Van Fleet died as president—chairman of the board of the U. S. Vanadium Corporation and that was—I have got to estimate this date

(Testimony of Walter Edward Remmers.)

—that was about—that was in the fall of 1947. He died in Tucson. He went back home.

Q. At the time of his death what was your position with [1540] the company, Mr. Remmers?

A. At that time I was executive vice-president of U. S. Vanadium Company.

Q. What position did you hold with the Electro Metallurgical Company?

A. Vice-president.

Q. At this point you and Mr. Priestley were actually in charge of the United States Vanadium Company and the Electro Metallurgical Company, were you not?

A. Well, if you describe it that way; all the officers were in charge and we reported to others.

Q. You folks were the chief managing agents for those companies, were you not, you, Mr. Priestley and Mr. Haggerson at one point?

A. With others in the corporation, yes, but not solely. No one in an organization of our type had any sole discretion in matters.

Q. Prior to that time, while nobody had any sole discretion, Mr. Van Fleet was the chief managing officer of the United States Vanadium Company, wasn't he?

A. You had better describe chief managing officer. He was president, yes, and prior to that time he was a vice-president, and prior to that he was general superintendent, and prior to that he was chairman of the board.

Q. Would you say during the time he was presi-

(Testimony of Walter Edward Remmers.)

dent he was [1541] the most active man in formulating the policy of that company?

A. No, no, I wouldn't say that.

Q. Who was?

A. Nobody. This is a corporation; this is not a small company.

Q. I understand that, sir. I am not suggesting he was the sole man; I am suggesting that as president he was—— A. He was quite active.

Q. He was the most active of any other single individual in formulating the policies of that company, wasn't he?

A. No, I don't believe so. I couldn't agree with you.

Q. Who was more active than Mr. Van Fleet while Mr. Van Fleet was president?

A. Mr. Rafferty was chairman of the board at that time, and what their mutual relationship was I could not testify. But there was a man to whom Mr. Van Fleet cleared his problems and discussed —and there was also a board of directors in those days. That was a separate company. And the board of directors also functioned.

Now, when you say "Who was the most important man?", you have got to define what are the most important decisions. If he made more decisions, there might have been more important decisions.

Q. Let me put it this way: There isn't any doubt that between Mr. Rafferty and Mr. Van Fleet, they were the men who were more important

(Testimony of Walter Edward Remmers.)

than any other group in formulating the policy of the United States Vanadium Corporation? [1542]

A. With the board of directors and the vice-presidents who recommended things to them, yes.

Q. And then there came a time when you and Mr. Priestley kind of assumed the position that they had in connection with formulating——

A. We didn't assume. We were elected to positions, and we, again, had people to whom we were accountable, and we had vice-presidents who recommended, and we had a board of directors to whom we were accountable.

Q. At the time Mr. Van Fleet died was there any discussion in your organization about some documents that he had taken from the files of your company?

A. No. No, not that I know of.

Q. Did you know, at or about the time that Mr. Van Fleet died, or had you been told by anybody, that he had possession of certain documents?

A. No, I did not. That came out in the Denver trial.

Q. And you knew that for the first time at the time of the Denver trial?

A. In the preparation of the Denver trial is the first time I heard of such a thing.

Q. And prior to that time you had never heard of it? A. I had never heard of it.

Q. Do you know whether or not your company, at the time of Mr. Van Fleet's death, sent one of

(Testimony of Walter Edward Remmers.)

the employees of your [1543] company to his apartment to get back some papers?

A. No, I know nothing of that nature at all. I do know that upon his death one of our employees visited with—this is rather vague; this is nothing of consequence—but one of our employees talked with the housekeeper over there and wanted to know what was going to happen to his personal effects.

Q. Was that employee Mr. Emigh, by any chance? A. Yes, Mr. Donald Emigh.

Q. What was Mr. Donald Emigh's position with the company at the time?

A. He was a mining engineer.

Q. Did you send Mr. Emigh over to that place—— A. No.

Q. ——to the apartment?

A. Indeed not. I reprimanded him a little bit for doing that sort of thing.

Q. When was it that you reprimanded him?

A. When he got back. In a mild sort of way. I just said—I just questioned him on that, "I don't think it was the right thing for you to do."

Q. Why did you question it? What were you concerned about?

A. Because there were personal effects of Mr. Van Fleet, and I would be just as resentful if someone interfered in my [1544] personal affairs to that extent.

Q. Do you think Mr. Emigh was out to get the personal effects of Mr. Van Fleet?

(Testimony of Walter Edward Remmers.)

A. No, he wasn't. His motives were obviously of the finest type. He was a friend of the family; he wanted to be of help.

Q. Well, if you believed his motives were of the finest type, why did you reprimand him?

A. I thought it was a little presumptious on his part to go alone and visit with the—I thought it was probably in order for him to inquire of the family at the time.

Q. Emigh was out after those papers, wasn't he?

A. No, indeed not. I doubt if Mr. Emigh had any idea, or knew anything about any papers.

Q. Didn't he inquire for those papers of a Miss Helen Knoor?

A. You are asking me something that I know nothing about. But I think you are inferring that Mr. Emigh knew something that was not above board, and I don't think that's correct. I don't think that had anything to do with it. I don't think that Mr. Emigh went after any papers whatsoever. I don't know that he knew there were any papers.

Q. Well, you knew about it, did you not?

A. I told you once before, I did not.

Q. And then your reason for reprimanding him was simply [1545] that you thought it indelicate of him to go searching after the personal effects of Mr. Van Fleet, is that it?

A. He was not searching.

The Court: Now, just a moment. Let's defer the argument. Just ask the questions.

Q. (By Mr. Alioto): All right, then let me ask,

(Testimony of Walter Edward Remmers.)

is it or is it not a fact that your purpose in reprimanding Emigh for going to the apartment of Mr. Van Fleet immediately after his death was because you thought it was indelicate of him?

A. Indiscreet, is the word I would use.

Q. Indiscreet. All right. A. Yes.

Q. Did Mr. Emigh, at the time, tell you why he went?

A. No, I don't think so. I don't think we discussed that.

Q. Now then, did there come a time when you sent an employee named King Haldane out to Rifle, Colorado, to destroy some documents?

A. Definitely not.

Q. And you know nothing, I take it, as you sit there, of any facts as to whether or not Mr. Haldane went out to Rifle, Colorado, to destroy documents?

A. I know nothing of a trip of that nature whatsoever.

Q. Did you ever hear of a thing called the MacQuigg Report? [1546]

A. I heard of that in the preparation of the Denver trial for the first time.

Q. For the first time?

A. For the first time.

Q. Do you know whether or not King Haldane went out to Denver for the purpose of destroying the MacQuigg Report?

A. No, I do not. To me, that sounds rather preposterous.

(Testimony of Walter Edward Remmers.)

Q. In other words, you don't think it happened, is that it?

A. I don't think it happened. In the normal conduct of my business I would be surprised if anything of that nature happened.

Q. You have never been informed that that did happen?

A. No. No one has ever even suggested that, until you have right now.

Q. Do you know of a contract called the Maggie C. contract between your company and the Vanadium Corporation of America, Mr. Remmers?

A. Only what I have heard in the preparation of the Denver trial. I never heard of it before then.

Q. You mean prior to the time of the Denver trial you didn't know that your company was mining ore off claims that belonged to the Vanadium Corporation of America?

A. That is what I testified to, and that is what I said [1547] is my knowledge of the Maggie C. claim. In New York I had no interest or responsibility in operating mining claims in the Far West. As a matter of fact, I was a salesman at the time that was—I was interested in sales at the time of the Maggie C. claim.

Q. As a salesman you wouldn't be interested in the fact that the Vanadium Corporation of America, your great competitor, was receiving its vanadium oxide supplies from your claims that you were mining for them? As a salesman, you wouldn't be interested in that fact?

(Testimony of Walter Edward Remmers.)

A. I would have no knowledge of it. It is a separate and distinct entity, a separate corporate structure, and as a salesman in the sales department in Chicago I certainly would have no knowledge of the source of supply of the raw materials any more than I would know the details of the chrome ore company mining our chromium in Africa.

Q. How many competitors did you have in 1939 in the ferro-vanadium field?

A. In 1939 there was only one real competitor, and that is the Vanadium Corporation of America.

Q. You say there was only one real competitor. Do you know whether there were any unreal competitors in 1939,—whether there were any unreal competitors?

A. I'm sorry, I should have used "substantial," instead of "real." [1548]

Q. Do you know whether there were any insubstantial competitors in the production of ferro-vanadium in 1939?

There were just the two of you, now, weren't there, Mr. Remmers?

The Court: Let him answer the question, now.

A. In 1939, so far as I know, there were only the two of us, the only two that I recall in the vanadium business at that time—ferro-vanadium business.

Q. (By Mr. Alioto): And from 1939 right down to 1949, except for the period of the Continental-

(Testimony of Walter Edward Remmers.)

Apex production, you remained the only two in the ferro-vanadium field, didn't you?

A. That's right.

Q. Now, wouldn't it have been a good sales point in connection with this great sales effort that you say you made, wouldn't it have been a great sales point to tell the steel mills that your competitor was actually getting his raw oxide supplies from you?

A. As a salesman, if I had known it, I probably would have said something about it. I would have used everything at my command to sell all the vanadium I could.

Q. What was your position in 1939, '40, '41, Mr. Remmers?

A. I was running the Chicago district sales office. There were two salesmen in that office, but I was the manager of the two men. [1549]

Q. When did you move to New York?

A. I moved to New York in that I was en route from September 28th to October 1st of 1941, and I reported in to the sales office on December 10th in 1941.

Q. Well, then, in 1941, when you reported to New York, you didn't know that there was a thing called the Maggie C. agreement?

A. No. You don't understand the type of organization we have. This is a large company.

Q. Yes, I understand that.

A. And I moved to New York without title, without an office, in the first few months, and I

(Testimony of Walter Edward Remmers.)

worked as an administrative assistant on special assignments, as a sales correspondent, and working in the sales corporation, reporting solely in sales. I had no other responsibilities at that time. Actually, I was working with Mr. Roser.

Q. When did you become an officer of any one of these companies for the first time?

A. Substantially later. I became an officer of Electro Metallurgical Sales Corporation in 1944, a vice-president of the Sales Corporation, and that was a separate corporate entity, and it had nothing to do with the production of ores anywhere in the world.

Q. Weren't you the administrative assistant in connection with sales from 1941 to 1944, right in New York? [1550]

A. I was not "the"; I was "an" administrative assistant. There were several of us working, oh, more or less flunkeys for the officers and the important people.

Q. You were just a flunkey, is that what you are trying to tell us, between 1941 and 1944? Is that what you are trying to tell us?

A. That's right, an assistant. I had no title. I was doing chores. I was working on special assignments, on sales problems. I was more or less understudying Mr. Roser, who was district manager in the New York office.

Q. Didn't you inquire at that time as to what kind of a sales pitch you could use with the steel companies in trying to get more business from them

(Testimony of Walter Edward Remmers.)

as against the Vanadium Corporation of America?

A. Yes, indeed, we used to have sales meetings; we used to discuss that sort of thing; we used to have meetings with the works managers, departments, and with the sales development people, to find what we could use to sell more vanadium than what we were selling.

Q. Did you have meetings with Mr. Priestley?

A. Yes. Mr. Priestley was in charge of the development work at that time.

Q. Did Mr. Priestley ever tell you that the Vanadium Corporation of America was getting its oxide from you folks?

A. No; no, indeed not. [1551]

Q. Did you know in 1941 whether or not your cost of producing oxide was lower than the cost of the Vanadium Corporation of America?

A. I wouldn't have the slightest idea to this day, and all through all the days I was in charge of the vanadium production, I wouldn't have the slightest idea whether our cost of producing vanadium oxide was higher or lower. What opportunity would I have to know that?

Q. You say that you had no opportunity to know that?

A. No, indeed not. I had never seen their cost figures.

Q. Well, didn't somebody in your organization try to find out at what cost your only competitor could produce ferro-vanadium?

A. If you ever took an annual statement of a

(Testimony of Walter Edward Remmers.)

ferro alloy company, which we did regularly, and tried to work backwards and find out what their costs were, you would find that it is utterly impossible to do that, because no two producers sell the same products, and no two producers submit their figures in the same manner. We have tried that in sales, but we get nowhere.

Q. Mr. Remmers, didn't you know as of 1941 that Mr. Van Fleet had at one time in his life made a secret trip down to Peru——

A. No, I did not.

Q. ——to investigate—— [1552]

A. No, I did not.

Q. ——the vanadium mine of the Vanadium Corporation of America?

A. I learned that sitting in the courtroom in Denver for the first time.

Q. For the first time?

A. For the first time, yes, sir.

Q. And didn't you know that Mr. Van Fleet had reported—didn't you know in '41 that Mr. Van Fleet had reported that they were in trouble in their Peruvian mine because their high-grade ore had been mined out? A. I did not.

Q. And when did you find that out for the first time?

A. In the preparation for the Denver trial.

Q. And didn't you know in 1941 that your cost of production for vanadium oxide just a few years before that was 40 cents?

A. No, certainly not.

(Testimony of Walter Edward Remmers.)

Q. And didn't you know in 1941 that you were selling oxide to the Vanadium Corporation of America for 80 cents? A. No, sir.

Mr. Holland: I object, your Honor.

Q. (By Mr. Alioto): You didn't know that?

Mr. Holland: That fact is incorrect. That is not that fact. [1553]

A. I was in the sales department in 1941.

Mr. Alioto: Let's see whether my fact is incorrect. Just hold it a moment. Just a minute, sir.

Mr. Holland: O.K.

Mr. Alioto: Let's see Exhibit 14, please.

Pre-trial discovery in connection with the purchases of vanadium pentoxide for the years 1938-1939. The Vanadium Corporation reported that they made purchases of vanadium pentoxide at prices of $1.10 and 80 cents.

In 1939 at prices of $1.18, at 80 cents, and at 65 cents.

Mr. Archer: What about 1941?

Mr. Holland: 1941 is the year you used.

Mr. Alioto: No.

Mr. Holland: All deliveries of oxide from the Maggie C. stopped in July of 1940.

Mr. Alioto: Now, in connection with Mr. Holland's statement that all deliveries of Maggie C. stopped in 1940——

Q. (By Mr. Alioto): I show you a letter dated August 9, 1941, and ask you if you can identify that signature?

A. It appears to be the signature of Mr. Hal-

(Testimony of Walter Edward Remmers.)

dane, who was superintendent, at one time, at Uravan. [1554]

Q. He was superintendent in 1941 out of Uravan, wasn't he?

A. That is the way he signed it, yes.

Q. By reference to that document can you tell us whether the statement of Mr. Holland is correct, that the magnesite shipments stopped in 1940?

A. I am reading a letter I have never seen before and that I have no knowledge of.

Q. What does it say?

A. This letter is addressed to the Vanadium Corporation of America, Naturita, dated August 9th, 1941:

"Gentlemen:

"We are enclosing herewith Maggie C. report covering July tonnage."

I presume it is July, 1941, although it doesn't say so.

"Yours very truly."

Q. Will you be good enough to flip the page and tell us how much tonnage was reported in 1941, August of 1941?

A. It will take me a minute here. I have never seen these figures before. I have never seen this correspondence.

Mr. Holland: Is that an exhibit in evidence, Mr. Alioto, may I ask?

Mr. Alioto: No; it is going to be offered in a moment.

The Witness: This is dated July 9th over the

(Testimony of Walter Edward Remmers.)

signature of—it is signed "W. G. Haldane, Superintendent, July 9th, 1941, Maggie C. Ore." [1555]

This is not oxide. This is ore that is delivered from the Maggie C. to Naturita.

Q. Yes.

A. Eight and a half tons on the first, 8.9 tons—8 tons up to the one day it went up to 11 tons for a total of 94 tons. Alice run, one and a half up to almost three per cent, and during the entire month there was in ore a total of 3,377 pounds delivered, of which only 2,533 was extracted. That is a summary. I am sorry, I have never seen that before. It took me some time to look at it.

Q. That is all right, sir.

And now, the Maggie C. shipments and reports to the Vanadium Corporation of America were made as late as October 7th, 1941, were they not?

A. Well, as the first letter indicates, no, they were not made that late. This letter of October 7th indicates some shipments were made in September. This is signed—I can't identify the signature. I never knew the man.

Q. Mr. A. H. Coleman.

A. I never met him.

Q. Whether you met him or not, you knew he was a superintendent of yours out at Uravan, did you not?

A. No, I had nothing to do with Uravan or U. S. Vanadium in those days. [1556]

Q. Under the Maggie C. contract, up until October 1st of 1941 you shipped 717,848 pounds?

(Testimony of Walter Edward Remmers.)

A. You are telling me; I am not telling you.

Q. Of the V_2O_5, did you not?

A. I don't know. I will have to take a look. Again this is signed by a man I don't know and I can't identify the signature. I never met him and I couldn't testify as to what his position was at that time. This is a letter with a signature that appears to me to be R. H. or A. H. Coleman, and he signs it as superintendent.

Q. Of what?

A. Or the Uravan plant. The heading is Uravan, Colorado, United States Vanadium Corporation. 3,000 pounds contained involved, and the same quantity, 93.6 tons for the month.

Q. What is the total shipped under the Maggie C. deal up to October 1st, 1941?

A. 717,848.000 pounds, according to this figure here.

Q. Of vanadium oxide?

A. Of contained—no, ore—of contained vanadium oxide in the form of ore as mined, low-grade material. It runs one, two, three per cent.

Mr. Alioto: Mr. Archer, I take it there is no question about Mr. Coleman's signature?

Mr. Archer: If you are going to offer this in evidence, I would like to see it. [1557]

Mr. Alioto: I have no objection to your seeing it, Mr. Archer.

Mr. Archer: Do you want to put it in right now?

Mr. Alioto: I would like to put it in right now.

(Testimony of Walter Edward Remmers.)

Take all the time you want, because I want to inquire about whether he knew about that many pounds of vanadium oxide in 1941.

The Court: That doesn't say that many pounds of oxide. It talks about ore.

Q. What is the difference between ore and oxide?

A. The ore is material as it is dug from the ground, your Honor. It varies in vanadium content as a commercial ore from about 1½ per cent vanadium up to about three per cent vanadium. That ore is taken into a mill where it is ground up, digested and treated, and it then comes out as oxide. I think some has been here. It comes out as red cake, which is oxide plus water. It is then put in a furnace and the water is driven off and it changes from a red color to a black color. There is no difference really between red cake and black oxide except a few per cent of water, and then the black oxide is shipped——

Q. What per cent of this ore, then, was finally reduced to oxide?

A. I don't know what the recoveries would be in the plants of the Vanadium Corporation, but in our plants I would assume that—we used different processes, but I would say [1558] something better than 80 per cent of that would show up as finished oxide.

Q. You mean 80 per cent of the ore?

A. 80 per cent of the contained vanadium in the ore, which would appear as oxide.

(Testimony of Walter Edward Remmers.)

Q. What I am getting at is what percentage of the ore was finally found to be oxide?

A. About one to three per cent. Those are the usual ranges. Once in a while you find some a little higher, some a little lower, that would be milled.

Q. (By Mr. Alioto): Do you want to look at one of these reports again, Mr. Remmers?

A. Yes, please.

Q. If you will just follow the pencil on this. On the side you have a column "Pounds of V_2O_5." What does that mean?

A. That means the pounds of vanadium oxide or vanadium pentoxide or vanadic acid—they all mean the same thing and have been used interchangeably—that is contained in the eight and one-half tons that was delivered on the first of July, 1941.

Q. And you have under that column in July of 1941 under the heading "Previously extracted, 419,000 pounds, etc."

What does that mean? Pounds of what?

A. That is pounds of V_2O_5 contained in the ore.

Q. That is pounds of vanadium oxide, isn't it?

A. Pounds of vanadium oxide contained in the ore. [1559]

Mr. Alioto: Okay. We will offer this in evidence, if your Honor please. These are reports between U.S.V. and Vanadium Corporation of America.

Mr. Holland: Are you going to offer the whole thing?

Mr. Alioto: Yes, we offer the whole thing, which

(Testimony of Walter Edward Remmers.)

includes, first, the minutes of your board of directors approving this, Mr. Holland, and then the reports.

Mr. Holland: This all comes out of the statement that I made that there wasn't any oxide delivered under the Maggie C. after July, 1940, which is correct.

Mr. Alioto: The documents speak for themselves on that.

Mr. Holland: I do not think the witness knows anything about the documents, and I do not think the documents should go into evidence until a witness is on the stand who knows something about them. As a matter of fact, these show ore from Dry Valley that U.S.V. took back for their shipments of oxide from U.S.V.——

The Court: What has that got to do with this case?

Mr. Alioto: The materiality of that in this case, if your Honor please, is that this witness has indicated they were very competitive with Vanadium Corporation of America [1560] during a period of time he has mentioned and to which he has testified on direct examination.

Now, instead of being competitive, the fact remains that they were collaborating. The U.S.V. was mining on the claims of Vanadium Corporation of America and shipping oxide to the Vanadium Corporation of America at a price that was below $1.10, which is the price that they charged everybody else. That is the most direct evidence

(Testimony of Walter Edward Remmers.)

of collaboration, particularly in an industry where the two defendants controlled between them more than 95 per cent of all the oxide.

I think the relevancy is very clear, if your Honor please.

Mr. Holland: That evidence is already in. The agreements are in.

The Court: The objection will be sustained.

Mr. Holland: The resolution of the board that you refer to.

The Court: I do not see how that is material, or how it will help the Jury or the Court. Just a minute. I think we ought to get back to what this lawsuit is about.

Q. What was the relationship between these two companies at this time, these two producers of vanadium oxide?

A. Strictly a competitive relationship. They were selling ferro-vanadium and we were selling ferro-vanadium. They were selling various other ferro alloys, most of which we sold, [1561] perhaps one or two of them which we did not sell. We had a very substantial number of alloys that they did not sell. Ours was a larger company so far as ferro alloys was concerned generally.

Q. What was the relation between you two that was not competitive? Why would you sell to each other? Why did you?

A. I only have ideas as to that. As to the oxide material and the ore we are speaking about, there were times, for example, when Vanadium Corpora-

(Testimony of Walter Edward Remmers.)

tion had a strike and we supplied their customers, and on one or two occasions I recall when we produced a product called calcium silicon and they used it in processing something or other, and they didn't produce it, they came to us.

This is no different than what we would do with any other manufacturer of ferro alloys and there are a number of others.

On occasion, due to plant difficulties, or for manufacturing purposes, or I suspect more for the purpose of making up combination carloads, once in a great while they would place an order on us for materials that we made and they did not make.

Q. It any time was there any agreement or understanding as far as you know between those two companies that they would so operate as to accommodate each other to the exclusion of anyone else?

A. No, sir, definitely not, your Honor. I [1562] have no knowledge of anything of that nature. We were actually competing. I grew up in the Sales Corporation and our instructions were to get all the alloy business we could, not only from the Vanadium Corporation, but from Ohio Ferro Alloys, Pittsburgh Metallurgical, Tennessee Products and all the other competitors we had. There was never any restriction or restraint placed on any selling. Just to the contrary, we were continually urged to do better than what we had been doing.

Q. Was there ever, to your knowledge, any agreement or any understanding that these two companies were to operate with each other and

(Testimony of Walter Edward Remmers.)

conduct business with each other so as to accommodate them but exclude all others that were in the same line of business?

A. No, sir. As a matter of fact, since those days, there have been others who have grown up in the ferro alloy field and some of them, smaller producers, have grown and they have become rather stiff competition for us on other ferro alloy products.

Q. (By Mr. Alioto): Name one independent producer that grew up to any size in the ferro vanadium business right down to this date?

A. I said excluding ferro vanadium. You were not listening very attentively. [1563]

Q. I didn't say excluding ferro vanadium.

A. I said on products other than ferro vanadium.

Q. You will admit nobody got into the ferro vanadium business, won't you?

A. I was telling his Honor people got in the ferro chrome business, they got in the silicon business, they got in the silicon metal business, they got in the nickel chrome ferro alloy business.

There are many people that got into the ferro alloy business since the time we are speaking about, 1939.

Q. But no one got into the ferro vanadium business?

A. I said alloys other—other alloys.

Q. You can answer the question directly, can't

(Testimony of Walter Edward Remmers.)

you? No one got into the ferro vanadium business, is that right?

A. If you are trying to confuse me, Mr. Alioto, I must repeat—I would suggest that you have the reporter read his notes if there is any question in your mind as to what I said.

The Court: Let us not argue the case.

Q. (By Mr. Alioto): Is it not a fact that nobody got into the ferro vanadium business with the exception of Apex for the entire period from 1939 right down to this very moment?

A. Nobody got into the ferro vanadium business. Nobody else got into the Silvaz business. Nobody got—I can name you a number of alloys that we make that nobody else got into. [1564]

Q. Did any officers of either United States Vanadium Company or Electro Metallurgical Company in your presence make the charge that "We ought to stop making deals with V.C.A. and go out and sell on our own merits"?

A. No, indeed.

Q. Did Mr. Burwell ever make that statement to you, or in your presence?

A. No, indeed.

Q. Were you present at a board of directors meeting or a meeting of the executive committee about some time in 1946 or 1947 in New York, relating to the question of uranium production and its relationship to vanadium production?

A. I have never attended a meeting of the board of directors at any time, nor have I ever attended

(Testimony of Walter Edward Remmers.)

a meeting of the executive committee. The executive committee is a relatively small committee of our board members who usually do not deal in problems or policies of operations, sales, and things of that nature.

Q. Mr. Remmers, as you sit there you remember a rather famous meeting, don't you, in which Mr. Priestley and Mr. Burwell got into a dispute?

A. I have heard of it.

Q. You were there, weren't you?

A. I indeed was not. That was a meeting of the [1565] operating committee that has been described in the transcript I read. It was not a meeting of the directors, and I question whether Mr. Burwell ever got into a meeting of the board of directors or a meeting of the executive committee. That was a meeting of the operating committee at which he was asked to present his operating budget, just as the rest of us were asked to present our operating budgets.

Q. Were you there?

A. No. I know what took place, though, by hearsay, because it was a famous meeting. Afterwards it became quite well known.

Q. You were not there?

A. No, indeed not.

Q. Mr. Haggerson was there, was he not?

A. I don't know. I wasn't there.

Q. Mr. Priestley was there, was he not?

A. I just finished telling you I wasn't there. How could I testify as to who was there?

(Testimony of Walter Edward Remmers.)

Q. Did Mr. Priestley ever tell you that Mr. Burwell at this meeting had accused them of having had deals with V.C.A. and that is why they couldn't sell the vanadium?

A. No, definitely not, a preposterous sort of suggestion.

Q. Did Mr. Burwell ever have a discussion with you about a so-called process C for the extraction of uranium as against vanadium?

A. Process C? [1566]

Q. Process C.

A. We were both officers of a company and knew of technical changes, but I know of no process as Process C. I know of no report, that is, on Process C.

Q. Let me show you a copy of a report, Mr. Remmers, that is dated December 28th, 1947, and ask you whether you personally ever saw a copy of that report, and I call your attention to a graph setting out a proposed price for vanadium oxide.

A. I have never seen this report before.

Q. Let me show you a copy of a document——

A. I can't comment. It would take quite a little while to study. It is a technical report. There is a lot of information in it, and it would take a long time to study it.

Q. I asked you whether you ever saw it and your answer was you have never seen the report before?

A. I never saw this report. Incidentally, it was

(Testimony of Walter Edward Remmers.)

restricted and declassified by Blair Burwell, according to the initials here.

Q. Let me show you a document dated December 28th, 1947, and ask you to read the——

A. Just a minute. I would like to check that.

Mr. Archer: May I see the document you are about to hand the witness?

The Witness: December 28th — Mr. Burwell wasn't [1567] with the corporation at the time he wrote this. He had resigned.

Q. (By Mr. Alioto): Wasn't his resignation effective February 1st, 1948?

A. No, I think December 11, 1947. That is the reason I haven't seen it, apparently.

Mr. Archer: Will you indulge me for just a moment here?

Q. (By Mr. Alioto): I show you a copy of a letter marked "Restricted," with a D designation, and ask you if you will be good enough to read the first paragraph of that letter and then state whether or not that refreshes your memory of your having seen a report in connection with the so-called Process C for getting uranium.

A. This is a letter unsigned with the name Blair Burwell typed in the lower left-hand corner, dated December 28th, 1947. It is a copy of a report, apparently. And this is labeled, "Recommendations made for future regional production——"

Mr. Archer: I object, your Honor, to reading this.

(Testimony of Walter Edward Remmers.)

Q. (By Mr. Alioto): I am asking you simply——

Mr. Archer: Unless the witness can identify it.

Q. (By Mr. Alioto): Read that first paragraph to yourself and then state whether or not that refreshes your memory as to whether or not you ever saw that report. [1568]

A. No, that doesn't refresh my recollection that I ever saw that report. We had many technical discussions. Whether this was a summary of that, I couldn't say without reading it and studying that report, as well; that was a part of our job to develop processes.

Q. Just so we can get the record straight on this matter of resignation, as to when it occurred, I would ask you to look at the letter which I am handing you, dated January 27th, 1948, and then would you be good enough to tell us the effective date of Mr. Burwell's resignation from the company?

A. Do you want me to tell you what this letter is all about?

Q. No, just tell me if that refreshes your recollection as to the date of Mr. Burwell's resignation.

A. My recollection is quite clear. I mean, this is an important matter in a corporation. It isn't customary for a man in the position of vice-president to leave a corporation. It was a very unusual situation, so I can remember the dates and the conversations and the correspondence quite well.

Q. Isn't it a fact that Mr. Burwell's resignation

(Testimony of Walter Edward Remmers.)

as vice-president of U.S.V. was accepted as of January 31st, 1948?

A. Well, now, if you will get the rest of the correspondence and provide me with the letter of about December 11th addressed to Mr. James A. Rafferty, I will complete the story and give you the full answer. [1569]

There was discussion back and forth. This was done by correspondence, incidentally.

Q. Mr. Remmers, did you write this letter that I have shown you now?

A. Yes, indeed I did write that.

Mr. Alioto: We will offer it in evidence, if your Honor please.

Mr. Archer: I object, your Honor. This is going into the question of Mr. Burwell's termination and it can't possibly have any relevance to this lawsuit.

Mr. Alioto: If your Honor please, the witness has just made the statement under oath——

The Court: Objection sustained. Let us get something in connection with this lawsuit. We are getting too much into outer space.

You are charging in this suit there is a conspiracy between these two companies. Now, let us have some proof on that. This certainly has nothing to do with the lawsuit.

Mr. Alioto: Mr. Burwell wrote a report at the time he was with the company, although the witness on the stand says he was not with the company. He wrote a report, and I have a letter in

(Testimony of Walter Edward Remmers.)

my hand that shows that his resignation took place two months after, and with respect to that letter, I do not understand how the Court can say that we are getting into outer space. [1570]

The Court: It may have been accepted as of the date of resignation.

Mr. Archer: Mr. Burwell himself testified he resigned on December 11th, 1947. It is in the record.

The Court: Objection sustained. Let us get along with this case. We are spending too much time on matters that I think are wholly immaterial.

Q. (By Mr. Alioto): Did you have a policy at any time between 1938 and 1949 of not selling vanadium oxide to producers of ferro vanadium?

A. Not selling oxide to producers of ferro vanadium?

Q. Yes. A. No.

Q. I take it, then, there was no policy in your organization that would have prevented you from selling vanadium oxide to the Apex Smelting Company? A. No.

Q. For the production of ferro vanadium?

A. No, there was no policy on that.

Q. You testified that in 1943 you did receive a request from the Continental Ore Company for a regular monthly supply of vanadium oxide?

A. That is right.

Q. And prior to that time you had in fact made sales to the Vanadium Corporation of America of vanadium oxide, had you not? [1571]

A. I had not, no.

(Testimony of Walter Edward Remmers.)

Q. Your company had prior to that time?

A. What I learned about later on, yes.

Q. And you know about it now?

A. I know about it now, yes, in the preparation of the Denver suit I learned a lot of things.

Q. And a substantial quantity of those sales were made on the basis of 80 cents per pound?

A. That is correct, as I learned later. [1572]

Q. Now then, in November of 1943 there was a relatively free supply of vanadium available, wasn't there?

A. It was getting to be quite free. The first half of that year it was very, very scarce; it was in very difficult supply.

Q. You, personally, went to Washington around September of 1943, did you not, Mr. Remmers, and asked the government to take the restrictions off vanadium because now vanadium was in free supply?

A. I don't recall whether the specific date—I made many trips to Washington during the war, advisory committee meetings, and things of that nature. I am quite sure that I would have suggested in the latter part of that year—I don't know whether as early as September, but I am sure I would have suggested that it was about time to ease restrictions on vanadium because it was beginning to accumulate. Still not what you might call a burdensome problem. It was beginning to get that way, and we didn't know which way the situation might change from a month-to-month basis.

(Testimony of Walter Edward Remmers.)

Q. Well, do you recall there was a vanadium industry advisory committee meeting held on October 25, 1943?

A. No, I wouldn't recall that. I didn't attend the vanadium industry advisory meetings. Mr. Van Fleet, or somebody from the mining company normally attended the vanadium meetings. [1573]

Q. Mr. Haldane attended them, didn't he?

A. He may have.

Q. Sometimes? A. He was in Washington.

Q. And he was authorized to attend them on behalf of your organization?

A. He was our official representative who attended in response to a telegram, and he was—. You are limited to one representative, and I am quite sure Mr. Van Fleet would send Mr. Haldane at times.

Q. He was authorized to request of the government in October of 1943, was he not, that vanadium be taken off all government controls?

A. That's quite possible.

Q. Because it was in free supply?

A. Yes, it was beginning to become much bigger.

Q. Did your company have any policy with respect to not selling vanadium oxide to the steel mills?

A. I wouldn't say it was a policy. It certainly was technically sound judgment in many cases not to sell oxide. We did sell oxide. We have been selling oxide to steel mills over the years. A number of the people have been using oxide. So we

(Testimony of Walter Edward Remmers.)

had no policy against it. But we didn't feel that the use of oxide in the manufacture of steel was sound technically. It increased the length of the furnace time; it meant more [1574] expenditure in the producing agents. If it was under a time of production stress, as we were during the war, it was very short-sighted economy to put oxide in the furnace and prolong the time of a heat, when additional production could be gotten from that same unit.

So while we did sell it, we didn't encourage it. We also felt it gave you dirtier steel.

And one of the comments that some of us used to make: "If you are going to put tungsten oxide, vanadium oxide, in steel, why don't you put iron oxide and reduce the iron in the furnace at the same time?" It's facetious, but it's going to the extreme.

So, those were the reasons why—some of the reasons why we didn't recommend—our service men—didn't recommend oxide addition. It could be used. Steel is a technological process; it takes a lot of skill. Some people acquire this skill. There is a limited amount of oxide that you can economically add to an electric furnace. And if you are adding tungsten in the form of oxide, obviously you would add less vanadium in the form of oxide. If you are adding all of your ferro-tungsten in the form of the ferro alloy,—your tungsten in the form of ferro alloy—you could get by that with adding a certain amount of vanadium oxide.

(Testimony of Walter Edward Remmers.)

Q. Well, wasn't there another reason for not selling oxide to the steel mills, namely, that you would be competing [1575] with your own ferro alloy profits?

A. Oh, obviously. I mean, our business was ferro alloys. And if you are in the ferro alloy business—we didn't go out and sell chrome ore, for example, because we made ferro-chrome. We bought chrome ore. That was no different than any one of our other products. Our business was making ferro alloys. But that business was built on a very sound technological process, and you couldn't build an organization and a business as great as that unless you were sound technologically.

Q. Well, specifically, though, one of the reasons for your not selling oxide with a flux, or even plain oxide, to the steel mills, was because it was more profitable for you to sell the ferro-vanadium, isn't that a fact?

A. That is a fact, but you can't buck technological developments. For example, there are many processes that we have, more particularly in the chemical industry, where the plant facilities are recognized as becoming obsolete, and you have to just write them off if it is sound technologically to use something else. We didn't oppose the use of oxide in steel; we just did not recommend it, because we did not think it was good steel practice to use it. But obviously, we were in the business of producing the ferro alloys.

Q. Didn't Mr. Priestley ever tell you that the

(Testimony of Walter Edward Remmers.)

principal reason for not encouraging the use of the oxide with the steel [1576] mills was to protect your ferro alloy business against competition from the oxide?

A. No. If you will drop that word "principal," and not exaggerate the case, I will say yes. But if you say "principal," I will say no.

Q. You don't say it was the principal reason?

A. No.

Q. But it was one of the reasons?

A. It was a reason. Certainly, it was a reason.

Q. Was it an important reason?

A. Yes. They were all important reasons. If we are not talking about the unimportant reasons, these are all important reasons that I have enumerated. The technological development, the the cleanliness of the steel, economics; we were in war time conditions. And when you start adding oxide to a furnace and start reducing them in a furnace you are cutting down the steel capacity of that particular plant, that particular unit. And, incidentally, the production of alloy steel that the country at large, in time of war,——

Q. Well, specifically, didn't Mr. Priestley instruct you that he was fearful that the trend of supplying ores with combining reducing agents will lead to direct reduction of other metals like vanadium, and therefore, he tried to stop it?

A. Sure. Mr. Priestley was head of our development [1577] group at that time, and he wrote a letter to us at one time and suggested that.

(Testimony of Walter Edward Remmers.)

Q. Yes. And the letter is a letter which is now in evidence as Plaintiffs' Exhibit 73, isn't it?

A. That's right, there is no question about that.

Q. Yes. It is a letter you received at the time?

A. I received a copy of it. The letter is addressed to Mr. Dutot.

Q. You received a copy of it, didn't you?

A. I received a copy of it. And my initial is on this particular copy. So this is apparently from my files.

Q. Yes, I understand that. That letter was marked "Confidential." Was there any reason for marking it "Confidential"?

A. No, I see no reason for marking this letter "Confidential," except that it is the sort of thing you wouldn't want to circulate around the office.

Q. In other words, you wouldn't want the steel mills to know about this policy of not selling oxide to them?

A. Do you think we could fool the steel mills in their purchasing? You certainly are going to be mistaken, because they figure their costs down to a fraction of a dollar per ton, and they are very cognizant of increased costs, and most of them have a monthly meeting at which they review their costs of steel production. Even if we were recommending a [1578] process that was going to cost them money, you can be assured that we wouldn't stand up very long in the ferro alloy business, the ferrovanadium business, because they all would have

(Testimony of Walter Edward Remmers.)

gone to vanadium oxide if it saved a little money doing it.

Q. You would agree, for example, that nobody could sell Van-Ex, for example, to the steel companies, and fool them about its metallurgical qualities?

A. Yes, I would, because we were all——

Q. Then they can be fooled?

A. In this respect: Van-Ex, so far as I know—I don't know much about it except the name—it has been described to me all the way from straight oxide to something with some mystic compound added, in the Denver trial—I don't know anything about Van-Ex, or Van Ness, or whatever it is you are speaking about.

Q. Well, you heard about it in 1943 when the Continental Ore Company, or Apex. were supplying it to the steel mills, didn't you?

A. That's right, I heard the name. I have never seen any of the product to this day, and we are very active in the ferro alloy business.

Q. Well, as a matter of competition, you would have known that was being sold to the steel mills?

A. I heard of it; yes, I heard. I answered that I heard.

Q. By the plaintiff company? [1579]

A. But I have never seen it. I have never—no one has ever discussed—no one who has ever used it has ever discussed it with me, its results, or anything of that nature.

Q. Do you think it was sound in 1943 for——

(Testimony of Walter Edward Remmers.)

A. Yes, indeed, it was sound for—to get every pound of vanadium you could get from anybody at that time, in the early days.

Q. Was it sound to sell vanadium oxide to the steel mills—metallurgically sound to sell it to them?

A. No.

Q. It was not? A. No.

Q. Why not?

A. Because at that time we needed every ton of furnace capacity in the United States to promote our war effort, and to sell the product that increased the time of production of steel and perhaps jeopardized the cleanliness of that steel, would not be sound technologically, and would not be patriotic at the same time.

Q. Didn't the steel mills know that they were unpatriotic for buying it?

A. No. At that time there was a shortage. At the beginning of the war there was a shortage in vanadium in the country.

Q. What was unpatriotic about a steel company like Diston, [1580] or the Atlas Steel Company of Canada, buying Van-Ex? What was unpatriotic about it? A. May I answer?

Q. Yes.

A. Well, if you will just be quiet I will answer it.

Q. I will be quiet.

A. In the beginning of the war there was a shortage of strategic materials, and in those days people bought all sorts of things. We used grades of ore

(Testimony of Walter Edward Remmers.)

we never thought we would put into an electric furnace. And with the impending war clouds that were gathering on the horizon, steel companies were buying vanadium in all forms. I suspect they were buying even a little ahead of their requirements. You could sell most anything at that time that was vanadium. That is the reason I said——

Q. In 1943 when you folks went to Washington said "Take the restrictions off"?

A. I am speaking at the beginning of the war.

Q. I am speaking in 1943. Was it unpatriotic to sell Van-Ex to the steel mills in 1943?

A. No, not when there was a surplus. I didn't say it was. You are putting words in my mouth.

Q. You didn't say it was unpatriotic——

A. I didn't say it was unpatriotic to sell Van Ness to the steel companies, or any other product of that type. [1581]

Q. What did you say was unpatriotic?

A. I said it would be unpatriotic to recommend to the steel companies any process that reduced the capacity of the steel of the United States at a time when this country needed every pound that could be produced.

Q. Well, does that mean it was unpatriotic to sell Van-Ex to the steel companies in '42 and '43?

A. I am not prepared to comment about that. I told you I had no idea what Van-Ex was. I have heard it described as half a dozen—no, not perhaps half a dozen, but several different products. I know nothing about it whatsoever.

(Testimony of Walter Edward Remmers.)

Q. Let me put it this way: Was it unpatriotic to sell vanadium oxide mixed with a little fluorspar, aluminum, or silicon, in 1942 and 1943, to the steel mills?

A. And charge a fancy price for it, yes.

Q. And charge $2.40? A. Yes.

Q. $2.40 for it?

A. That's my personal opinion. I think it's taking advantage of a situation.

Q. And the ferro-vanadium cost them $2.70 at that time.

A. That's right. They were not interchangeable, mind you. There is a decided technical difference from what you described here; this Van-Ex with a little fluorspar is not very much different than vanadium oxide. You put a little [1582] oxide into—a little fluorspar into vanadium oxide, you get this material you are talking about, this Van Ness.

Q. Now, the steel companies, in 1942 and 1943, were very informed buyers, weren't they?

A. They were——?

Q. Highly informed buyers? A. Oh.

Q. The steel companies.

A. I'm sorry, I misunderstood you. Yes. They still are. They are very well informed.

Q. They couldn't be fooled by something that didn't have any metallurgical qualities?

A. There could be economic pressures to acquire all the raw material they possibly could under those conditions, and we were, too, and we used low-grade

(Testimony of Walter Edward Remmers.)

ores. We did a lot of things to maintain our source of supply to the steel industry.

Q. Aren't you selling Van-Ex today?

A. Van Ness? No. We advertised a product called "Self-Reducing Vanadium."

Q. And isn't that vanadium oxide plus something?

A. That is vanadium oxide plus something. But you ask me whether we are selling it. Are you asking me—please ask me how much we have sold this year, to date.

Q. Are you producing it?

A. I can't tell you whether we produced it, but I can [1583] tell you how much we have sold to date.

Q. Are you advertising it?

A. I imagine we are. It is on our list of products with everything else. I wish you would ask me how much we are selling.

Q. You go ahead; you put that right into the record, now. How much are you selling?

A. Well, I was waiting for that. We have sold 2,500 pounds through the first four months of this year, which hasn't paid for the printing on the tin cans or the advertising, I am sure, that we have done. That's out of quite a few hundred thousand pounds of other vanadium products.

Q. Now, are you——

A. Thank you for asking me, because I wanted to get that in.

Q. Now, aren't you advertising this as a new vanadium alloy?

(Testimony of Walter Edward Remmers.)

A. I don't think we call it an alloy. Probably a vanadium addition, I would think.

Q. Well, let me show you an article from the Daily Metal Report for Thursday, July 4, 1957. Does that refer to this thing you are speaking of now?

A. I can't testify as to what newspaper reporters write, because of the difference between alloy and a compound. I have never seen this, incidentally. But it is labeled here— [1584] I have never seen this at all.

Q. Let me show you something that you call self-reducing vanadium. Have you seen that?

A. No, I have not seen this, but this looks like it came out of one of our price books—a page out of one of our price books. It is called self-reducing vanadium, yes. But it doesn't say anything about alloy.

Q. That is just vanadium plus something else, isn't it—vanadium oxide? A. Yes, sure.

Q. What is the "plus"? What else is in it besides vanadium oxide?

A. I don't know. I have nothing to do with this. I haven't been in sales—or the operation, you know, for four years. I have a pretty good idea.

Q. Well, you wouldn't put out a product unless you thought there was some metallurgical efficacy, or some commercial efficacy——

A. Yes, indeed.

Q. You would?

A. Yes. Sometimes you have to put out a prod-

(Testimony of Walter Edward Remmers.)

net to meet competition. We are still in business to make money, bear in mind.

Q. Whom are you competing with today, except the Vanadium Corporation of America? [1585]

A. We are—that is an outgrowth, actually, of our self-reducing tungsten. We make a—at least, for quite awhile we made self-reducing tungsten material.

Q. That is a change in policy over the policy you were instructed to carry out by Mr. Priestley during this period of time, isn't it?

A. Well, vanadium—at the time Mr. Priestley wrote that letter, tungsten was being purchased as scheelite, and was being used by the tool steel makers well before that time.

The Court: Just a moment, now.

We will recess this clinic for ten minutes.

(Short recess.) [1586]

Q. (By Mr. Alioto): Mr. Remmers, I will try to finish as quickly as possible. I will do my best to do it as unclinically as possible. I do not expect to succeed in that last respect under any circumstances. A. Thank you, sir.

Q. Let me just wind up this matter of vanadium oxide that you folks produced later. Your price for that was $3.00, wasn't it, as against $2.40?

A. I don't know. It is on the sheet there.

Q. You look at it and tell us what it is.

A. I assume this is a price sheet. I have not seen the price sheet in four years. This is ar entirely

(Testimony of Walter Edward Remmers.)

different form from the price sheet used when I was selling.

Mr. Archer: What year is this?

The Witness: There is no date on it. That is why I say it is a price sheet, but I don't know.

Q. (By Mr. Alioto): You started producing this recently, of course, within the last couple of years? A. Yes.

Mr. Archer: You mean after the date of the filing of the complaint?

The Witness: It was first produced—it was first offered in 1956.

Q. (By Mr. Alioto): What was the price that you sold it for? [1587]

Mr. Archer: I object to what price they sold it for in 1956.

The Court: Objection sustained. This suit was filed in 1948.

Mr. Alioto: If your Honor please, this is something they did not like back in 1948. I was wondering if the company was getting worse or getting better when it produces it in 1956.

The Court: Limit your questions to the issues.

Q. (By Mr. Alioto): Your counsel asked you about some Silvaz. Do you recall that interrogation, Mr. Remmers? A. Yes, indeed.

Q. Silvaz was some kind of vanadium compound where you did not use the vanadium oxide, is that right?

A. No, it was not a vanadium compound. It

(Testimony of Walter Edward Remmers.)

was a complex alloy of silicon, vanadium and zirconium—and iron, the ferro.

Q. And you recall there were some moves made to produce that by your company?

A. There weren't moves made. We produced it and we offered it and we still have some, if you are interested. We still have some remaining in stock.

Q. Didn't there come a time when the Vanadium Corporation of America accused you folks of a breach of faith in selling Silvaz? [1588]

A. If they did, they kept it to themselves because I know nothing about it.

Q. You personally knew nothing about that?

A. I never heard of such a——

Q. There is in evidence a letter relating to the production of Silvaz, so-called, from Mr. Van Fleet, and he winds up that letter of September 1st, 1938 by saying, "Confidentially the reason why we must use some product other than fused oxide in this alloy to start with, is that we cannot sell vanadium for less than the market price, unless we can show that we do not use fused oxide and that we are using an impure by-product which cannot be used in any other way. For several years I have been trying to have the sales price of vanadium considerably reduced, and this would be an entering wedge. It has always been my opinion that if we were able to reduce the sales price of vanadium, it would encourage its use."

(Testimony of Walter Edward Remmers.)

Now, you were a member of the sales department, were you not? A. Yes, I was.

Q. At this period of time. Now, in connection with his statement, "Confidentially", which he underlines, "the reason why we must use some product other than fused oxide in this alloy to start with is that we cannot sell vanadium for less than the market price——" [1589]

A. I might ask you——

Q. What was the reason for that statement?

A. ——is Silvaz mentioned in here? Mr. Van Fleet is not talking about Silvaz. You are distorting this picture.

Q. I will read the whole letter. If there is any distortion, we would not want that to appear in this record.

A. May I see if it is the same letter I have in mind?

Q. Yes.

A. "Dear King:

"You will recall, or at least I recall talking with Blair, about the possibility of preparing a vanadium product containing silica, aluminum and iron."

I don't know whether this is the letter. I have seen a letter.

Q. Does silicon and vanadium refer to Silvaz?

A. Not necessarily. I will tell you why I bring up this point. Van—Mr. Van Fleet—had promoted at various times that we use an iron vanadium compound, which is an intermediate in the milling,

(Testimony of Walter Edward Remmers.)

iron vanadate, and at various times he has recommended that instead of going all the way through to a block oxide, which Electro Met has always kicked to Vanadium about the price of it, between themselves in interdepartmental discussions.

He proposed at various times we use an iron vanadate, [1590] which is an intermediate mill product, take that and reduce it with silicon and form a ferro-vanadium directly.

That is what I thought you had in mind when you were quoting Mr. Van Fleet.

Q. Is that what that letter talks about?

A. I don't know. I will have to read the letter.

Q. I believe the second paragraph explains what he wants done.

A. This may be another letter. If it is, I will find it.

Mr. Archer: Just so we know what we are talking about, what is the exhibit number on that.

The Witness: Plaintiffs' X-68.

Mr. Alioto: 68.

The Witness: Yes, this is the letter to which I referred. There is no mention of Silvaz in here.

Q. (By Mr. Alioto): What was the compound he was requesting to be made without the use of vanadium oxide, so we can get that fact established and then go on to this market price question?

A. I would like to read it if I may, please (reading):

"You will recall, or at least I recall talking with

(Testimony of Walter Edward Remmers.)

Blair about the possibility of preparing a vanadium product containing silica, alumina,"——

Remember, these end in "a." These are not the metals; these [1591] are the oxides (continuing reading):

——"silica, alumina, and iron, which could be very cheaply done. I had in mind somewhere around 25 cents to 30 cents per pound for the contained V_2O_5."

Can you imagine producing a black oxide for that price? It would have to be something far ahead of that in the processing. That is why I say he was talking about the ferric vanadate as an intermediate product.

If I may go on, down further he says (reading):

"I am very anxious to supply such a material, and it looks like the Sludge B would answer the purpose."

In other words, he is using an intermediate sludge that is unrefined to produce vanadium products. That is what Van is shooting for, for lower cost of vanadium product. But there is nothing in here about Silvaz. Van had nothing to do with Silvaz.

Q. Now that we understand what the product is we are talking about, I call your attention to the paragraph starting "Confidentially," which is underlined. Will you read that sentence first, and then I will ask you about it?

A. I remind you this is September 1, 1938, at a time when I had never met Mr. Van Fleet for the first time, so I can't surmise what his conclusion is.

Q. I am not asking what his surmises are. I

(Testimony of Walter Edward Remmers.)

want to be [1592] sure you do read it, so you won't have any distorted pictures in connection with that.

A. Are you inferring that I am distorting any pictures?

Q. No. You said I was. I don't want you to conclude that I am. Read it so there will be no question about it, Mr. Remmers, and you won't have to take my word for it. Just read the letter.

A. He says "Confidentially," underlined—I don't know what he means there, or why he should write it that way. He says (reading):

——"the reason why we must use some product other than fused oxide in this alloy to start with is that we cannot sell the vanadium for less than the market price."

Q. Why couldn't you sell vanadium, on September 1, 1938, for less than the market price, if you used the oxide?

A. Because the oxide was costing E. M. Company the market price of $1.10 a pound, and E. M. Company——

Q. It was costing E. M. Company $1.10 a pound, was it? A. Yes.

Q. You know that is not true, don't you, Mr. Remmers? A. No, I do not.

Q. Why were you selling it to Vanadium Corporation for 80 cents if it was costing you $1.10 in 1938?

A. Vanadium was sold to the E. M. Company just as it was [1593] sold to U. S. Vanadium, or

(Testimony of Walter Edward Remmers.)

anybody else. These are separate corporate entities selling their products. You recall price controls at a later time established that practice and said you must transfer between associated companies at the market price and under price controls.

Q. You were selling to Vanadium Corporation at that time for 80 cents, weren't you?

A. I have heard that since the preparation of the case.

Q. All right.

A. I can't testify to that. I was the salesman in Chicago at the time you are asking me about these things, in 1938,—a relatively new salesman of the company. I was with them two years.

Q. Is it your testimony that something that cost you $1.10 to make you sold to your principal competitor so it could make the alloy to compete against you for 80 cents? Is that your testimony?

A. I didn't say it cost $1.10 to make. I never said that at all.

Q. What did you say?

A. I said it was sold to the Electro Metallurgical Company at $1.10 a pound.

Q. How much did it cost to make?

A. I have no idea. It was produced by U. S. Vanadium. They are two separate corporate entities. One sells to the [1594] other as though they are separate companies.

Q. It was sold to you at $1.10 and to Vanadium Corporation of America at 80 cents?

A. They sold some at $1.18.

(Testimony of Walter Edward Remmers.)

Q. But mostly at 80 cents during that year.

A. I don't know. When you say most of it——

Q. Did you ever inquire why they sold to their own company and billed at $1.10, and yet sold to their competitor at 80 cents? Did you ever inquire about that?

A. I was the salesman in Chicago, and I never inquired about the raw material cost, and I am not exaggerating one bit. There were thousands of products of the corporation, and if I inquired what was the source of supply and whether we were selling those supplies to other people, where we were selling it, at what price, I would have no time to call on the customers whatsoever.

Q. Finally, as a member of the sales department, can you give us any reason why the complex of companies that was Union Carbide could not sell——

A. They are not very complex.

Q. All right. The group of companies——

A. There are two of us involved in this.

Q. The group of companies——

A. Group of two.

Q. Can you tell us why you could not sell vanadium [1595] contained in fused oxide at less than the market price?

A. Because I was in the sales department, and sales had nothing to do with the transfer from one unit to another. If the E. M. Company could have bought it for less money they certainly would have purchased it for less money.

Q. Then you do not know why you could not sell

(Testimony of Walter Edward Remmers.)

the fused oxide for less than the market price, is that it?

A. Who are you speaking of when you say "you"? What company? U. S. Vanadium or Electro Metallurgical Company? I can answer the question in one case; in the other I can't. That is the reason I ask you that question.

Q. Just read that letter and tell me if you know any reason why Mr. Van Fleet says (reading):

"We cannot sell vanadium for less than the market price,"——

and specifically, if you know, was the reason that you had a price-fixing agreement with the Vanadium Corporation of America.

A. Mr. Van Fleet wrote this letter as head of the mining department of U. S. Vanadium Company. He wrote to two men in his organization to whom he reported. Mr. Van Fleet didn't know any more about selling prices of ferro-vanadium than I knew about his manufacturing costs out in the Colorado Plateau.

Now, this is an inter-company bit of correspondence. He is proposing something to his two associates. And as I [1596] read this thing, he is proposing that they take a product out of process much earlier than black oxide and use that, recommend that its use be utilized in the manufacture of the metallurgical products in order to reduce the price. Mr. Van Fleet was always looking for some way to

(Testimony of Walter Edward Remmers.)

reduce the price of ferro-vanadium. That was his job, one of his responsibilities.

Q. Of ferro-vanadium?

Q. (By The Court): Do you know whether his recommendation was followed in this matter?

A. No, it was never followed. I know that definitely, because we were selling.

Q. (By Mr. Alioto): You say Mr. Van Fleet was always trying to reduce the price of ferro-vanadium?

A. By reducing tl raw material costs. I mean, he was interested only in the raw material that went into ferro-vanadium, yes, in increasing the sales.

Q. You do not know of any reason why he could not sell below the so-called market price if it contained vanadium oxide, do you?

A. Will you state that again?

Q. Why couldn't he sell below the market price, as he says in the letter, if the material contained a vanadium oxide? [1597]

A. I don't know what he refers to, selling below the market price—the oxide or the ferro-vanadium.

Q. Isn't it clear that he meant the ferro-vanadium?

A. No, no, it is not. It says here "vanadium." It could be oxide.

Incidentally, we have tried this process only in the last two or three years, again trying to reduce the cost by taking this intermediate product, ship-

(Testimony of Walter Edward Remmers.)

ping it to Niagara Falls, putting it in an electric furnace there and attemping to reduce it.

Q. When he says (reading):

"It has always been my opinion that if we were able to reduce the sales price of vanadium, it would encourage its use."——

you do not think he is talking about the ferro-vanadium?

A. That is a generic term, "vanadium." It could be oxide; it could be anything—ore. It could even be the famous Silvaz we made at one time.

Q. So he wanted to encourage its use in your own companies and not the steel companies?

A. No; Van was interested in encouraging the use of vanadium by all persons in order to promote the prosperity of the mining company he was head of. That would be quite obvious.

Q. During the time you were in the sales organization of [1598] Electro Metallurgical Company did you ever hear a discussion of policy as to three possible actions that the company could take in its relations with the Vanadium Corporation, one being that it take no aggressive action, but continue to let V.C.A. dominate the market; the second being that "We sell to V.C.A., but compel them to take an aggressive attitude toward stimulating the demand"; and the third being that "We set our own lowered price, and by an energetic campaign we eliminate V.C.A. from the field"? In 1938, or any time thereafter while you were with the company, did you ever

(Testimony of Walter Edward Remmers.)

hear any discussion about those three alternative positions which the company faced?

A. Yes, I did. I heard that in the preparation of the Denver suit for the first time, and that sounds very similar to recommendations—you are probably reading from the MacQuigg Report. I have not read the MacQuigg Report, except those recommendations at the time the Denver suit was being prepared. If you are speaking about 1938 and the time I was in the sales company, my answer is no. If you ask me about any time I was with the Electro Metallurgical Company, which was the operating unit, the answer is no. I have never heard anyone consider that report or discuss it. The only time I heard it come up for any discussion was in the preparation of the Denver suit.

Q. When you became vice-president of the Electro [1599] Metallurgical Company and U. S. Vanadium was there any discussión about the three alternatives which the company faced, and was there any further discussion about which of the alternatives the company adopted?

A. Never. It was never discussed to my knowledge, either in the U. S. Vanadium Company, while I had anything to do with it, or in the Electro Metallurgical Company.

Q. When you said awhile ago Mr. Priestley was in charge of the development company, what did you mean by that?

A. The department—in the earlier days Mr. Priestley was our vice-president in charge of tech-

(Testimony of Walter Edward Remmers.)

nical sales and development, and things of that nature—the field metallurgist, and the metallurgist working in the secondary markets. We had metallurgists working with the steel companies in the sale of their products, advertising, and things of that nature, customer search. Those items all came under Mr. Priestley's direction in the earlier days.

Q. Do you know of an organization known as the Union Carbide and Carbon Research Laboraties, Inc., at 30 East 42nd Street, New York City?

A. Yes, indeed. That is not the location of the laboratories; that is the location of our main offices, but the laboratories are at Niagara Falls.

What year was that, incidentally?

Q. Let me just ask you first if there was such an [1600] organization in 1938, 1939, 1940, 1941,——

A. Oh, yes, indeed. It is still in existence under a different name.

Q. There was in existence during the period 1938 to 1947, when you were with the Electro Metallurgical Company,——

A. Electro Metallurgical Sales, yes.

Q. The Research Laboratories, Inc., was in existence then, was it not?

A. No; Research Division. The Union Carbide & Carbon Research Laboratories were in existence in the earlier years. They were later known as the Metals Research Laboratories of the Electro Metallurgical Company, which name the use to this day. Actually, that whole name has been dropped.

(Testimony of Walter Edward Remmers.)

Q. From the period 1938 on what was it known as? A. On until when?

Q. On until 1947.

A. Union Carbide & Carbon Research Laboratories, Inc.

Q. And they had laboratories located at Niagara Falls, and didn't they have offices located at 42nd Street? A. Yes.

Q. Their main office?

A. There were people there, some people.

Q. And weren't economic problems referred to that organization as well as metallurgical problems and technical problems? [1601]

A. No, definitely not. That was the metallurgical laboratory.

Q. Do you mean that was never a time when economic problems were not referred to that organization?

A. My life time is relatively short with the organization. That is an old organization. I couldn't say "never." But during my employment with the corporation I can think of no problem that would be referred to the research laboratories metallurgists, because they were not qualified to write reports and pass judgment on economic problems. They had no economists, they had no sales people. They were highly trained men in the field of science.

Q. Well, is it your testimony that as of 1938 you were not aware of the fact that the whole vanadium problem had been referred to that group and that

(Testimony of Walter Edward Remmers.)

they were to work in collaboration with Mr. Priestley, Mr. Van Fleet, Mr. Burwell, as of 1938?

Mr. Holland: There is no such testimony in the case and he is trying to go back behind 1938 now. This case, it seems to me, is extensive enough.

The Court: Well, you have been instructed a number of times this is limited to '38, to the date of filing this suit.

Mr. Alioto: If your Honor please, in that connection, in a recent private action, the More Case, that your Honor is familiar with, they cite with approval the American Tobacco opinion in the Supreme Court which says it is permissible to go back for a short while before.

The Court: The Court has ruled.

Mr. Alioto: All right.

The Court: The Court has ruled on that matter.

Q. (By Mr. Alioto): What I am asking you is as of 1938, when you were in the organization, weren't you aware of the fact that a study had in fact been made and——

A. No, indeed not. Indeed not.

Mr. Holland: He is trying by the method of asking of what he remembers in 1938 to go back to 1935.

Mr. Alioto: When I try you can stop it, but right now I am talking about 1938.

A. What you're trying to do, something that is not the case, because in 1938, as I have testified, I was in Sales Office in Chicago, and I, to answer your question, I was not aware of anything of that nature, I had never heard of anything of that na-

(Testimony of Walter Edward Remmers.)

ture until it was brought out in the preparation for the Denver suit.

Q. Did Mr. Priestley ever tell you that there had been a study made and certain recommendations made and on the basis——

A. No, indeed not.

Q. ——and on the basis of the recommendations of that they had a policy from '38 on through?

A. No, indeed not.

Q. He never did?

A. We did not have a policy of that type that you just described there.

Q. You produced while you were there, approximately 74 percent of the vanadium oxide, didn't you Mr. Remmers, from '38——

A. Your figures would probably be more accurate than my memory.

Q. It was about three-quarters of all——

A. I don't know the basis of this chart, but——

(Counsel showing witness a chart in evidence.) [1604]

The Court: What is your question now? Let's get down to the question.

Q. (By Mr. Alioto): What was your understanding of what percentage of vanadium oxide, domestic production in the United States, was controlled by Union Carbide while you were there, taking 1938 to '45?

A. I couldn't testify as to that. I don't know anything about production of vanadium oxide in Colorado in '35.

(Testimony of Walter Edward Remmers.)

Q. Well, you knew that you produced a lot more than the Vanadium Corporation of America, didn't you?

A. No, I didn't. I thought we did. As a matter of fact, I knew nothing about it all the way through until '45.

I had some pretty good ideas. You know, at one time the Bureau of Mines' figures did not include publication of figures where only two producers were involved.

Q. Well, they still do not even today. You can't get ferro-vanadium figures from the Bureau of Mines, can you? A. I don't know.

Q. Because there are——

A. This was their original policy because it would be——

Q. Regardless of the Bureau of Mines, didn't you, as one of the chief managing officers of Union Carbide, have some notion as to what percentage of the vanadium oxide market you controlled?

A. Oh, yes, we had a pretty good idea, but I couldn't [1605] testify as to percentage.

Incidentally, you have mislabeled me, in a very complimentary fashion, but I was not one of the chief officers of Union Carbide in the period you are talking.

Q. The Electro Metallurgical Company.

Now, didn't you know at that time approximately how much oxide you produced as against your principal competitors, for example?

(Testimony of Walter Edward Remmers.)

A. We knew how much ferro-vanadium we were selling as opposed to our competitors.

Q. Well, the fact remains during that period of time, does it not, Mr. Remmers, that while you were producing more oxide than the Vanadium Corporation of America, that it was the Vanadium Corporation of America that was selling almost twice as much ferro-vanadium as your company?

A. If you can tell me how I in my position at that time could determine what percentage the Vanadium Corporation was producing at Naturita and other points in Colorado and what they were producing in Peru, it would be very helpful to us in our future analysis of the problem, but I don't know how we could determine——

The Court: You have just answered, you don't know.

Let's get along.

Q. (By Mr. Alioto): You mean you don't know —You [1606] didn't know while you were one of the chief managing officers of Electro Metallurgical Company, that you were producing more than the Vanadium Corporation of America from domestic sources?

A. Oh, sure, I knew that. You asked me percentage a minute ago.

Q. All right. Didn't you know that percentage was approximately three-quarters? A. No.

Q. You didn't?

A. I knew it was substantial. It was more than theirs. But in percent——

(Testimony of Walter Edward Remmers.)

The Court: You have answered the question.

Q. (By Mr. Alioto): All right. You certainly knew that, you certainly knew that you were supplying the Vanadium Corporation of America with vanadium oxide, didn't you? A. No.

Mr. Holland: What period?

A. No, I did not.

Q. (By Mr. Alioto): You didn't know in 1938 on?

A. No, I did not. I told you that about two or three times. No. I was a salesman in Chicago, and a salesman in Chicago certainly has no knowledge of what the mining division of his company is doing in Africa, in Colorado or other places around the world to produce materials. [1607]

Q. However, you knew as a salesman that Vanadium Corporation of America, which was buying oxide from you, was selling about two-thirds to one-third as against you; you knew that, didn't you?

A. I did not know that until a later date.

Q. While it was going on you had no estimate as to whether you were selling more than Vanadium Corporation?

A. I had a pretty good picture of what it was in my district but I didn't know what it was across the United States.

Q. When you became the chief managing agent of Electro Metallurgical——

A. I never became that.

Q. When you became the Vice-President——

A. All right.

(Testimony of Walter Edward Remmers.)

Q. We'll get to the exact phrase. — the Vice-President, the Executive Vice-President, didn't you know then——

A. I never was Executive Vice-President, except for U. S. Vanadium, and that is an ore producing company or raw material producing company.

Q. When you became Executive Vice-President of U. S. Vanadium and you were the Vice-President of Electro Metallurgical, you mean you didn't know at that time that your ferro-vanadium sales were only one-third as against approximately two-thirds of the Vanadium Corporation of America?

A. I knew that our — I told you that I knew what our sales of ferro-vanadium were, approximately.

Q. Well, did you know the relationship of your sales to VCA, that they were selling——

A. Of ferro-vanadium, yes. You asked me what percentage of the source of domestic vanadium we produced, and I told you I couldn't testify to that figure.

Q. All right.

A. In 1947 we were under contract, we were entering into contracts with the government, and through a good period that you are talking about we were producing at the direction of the United States Army and the Atomic Energy Commission for their benefit, and the vanadium that we did not sell to the trade, to the industry, to the trade, to the industry, they accepted. Vanadium was a strategic material, it was required for stockpiling purposes,

(Testimony of Walter Edward Remmers.)

and they accepted from us at a preferred price—to the government. I hope you won't object we sold to the government at something less than the trade.

Q. Now, my question is, sir, did you know that your ferro-vanadium sales were approximately one-third to two-thirds for the VCA, did you know that relationship?

A. The first time that I heard those two fractions used was sitting in Mr. Burwell's office in Grand Junction, Colorado, when we talked about his future with the company [1609] and he proposed that to me, he said that to me on that occasion.

Q. What I am asking is what you knew as the Executive Vice-President of one company and as the Vice-President of the Electro Metallurgical Company during that period from '38—from '44, we will say, to '47—. So there won't be any question about it, take from '41, when you were in New York, to 1947; didn't you have any idea what the ratio of your sales to the industry——

A. I told you I knew what we were doing in the sale of ferro-vanadium.

Q. All right.

A. That is what I was concerned about.

Q. And you knew that Vanadium Corporation of America was selling about twice as much ferro-vanadium as you?

A. I didn't know it was twice as much. There were times when we have sold probably 40 per cent —I don't know what period you are asking—but

(Testimony of Walter Edward Remmers.)

that thing fluctuated from year to year. There is no fixed amount.

Q. Let me show you one of the charts in evidence here. You can see——

A. I have never seen that chart before and I know nothing about it or its preparation.

Q. You knew, though, that Vanadium Corporation was selling approximately twice as much as you folks over the period [1610] from '41 to '45, didn't you?

A. If you will say "more," I will say yes. If you tell me—try to pin me down to a specific figure, I can tell you no, because that was not the uniform figure. It fluctuated and I wouldn't — I had never thought of that as being in a certain percentage of the market, never, and I was very closely associated with the sale of ferro-alloys.

Q. You also knew that your price for ferro-vanadium remained unchanged from a period before you got there, $2.70, right down to 1945, we will say? A. Yes, indeed.

Q. You knew that? A. Yes.

Q. You knew that that price remained unchanged even though your cost of business obviously increased during that period of time, did it not?

A. Yes, indeed.

Q. Was there a time when you proposed that the price be reduced in order that you might get more business that was going to the Vanadium Corporation of America?

A. If you recall, at that period the cost of every-

(Testimony of Walter Edward Remmers.)

thing was going up, there in the War time period. It certainly would not have been good business under those conditions to consider—in fact, in some cases we couldn't possibly consider reducing selling prices. Stability was going up, [1611] it just would not have been good business to reduce prices under those conditions.

Q. How about 1938?

A. In 1938, to begin with, I had nothing to do with setting prices.

Q. You were in the selling division?

A. I was a salesman, yes.

Q. In 1939 did you ever suggest that you might reduce the price so that you could sell more to the Vanadium Corporation of America customers?

A. No. I was a salesman at that time. I was out in Chicago and was not in New York, and it was not my responsibility to determine prices.

Q. All right. In connection with your salesman's activities would you be good enough to tell us whether you have ever heard the expression of 50-50 requirements contract?

A. Oh, sure, I have heard 50-50 contracts, 75%-25%, 60-40, full requirements, and I also heard, as a salesman, "Nothing doing."

Q. All right, you heard. You had some requirements contracts for certain customers——

A. Yes.

Q. ——based upon a 50-50 split, did you not?

A. We had depending upon what the steel company asked for. We tried to get all the business,

(Testimony of Walter Edward Remmers.)

obviously, and there [1612] are many steel companies that would not give us all the business. They insist on a policy of dividing their business between several suppliers.

Q. Can you tell us which of the customers you had in which the requirements would split 50-50, between your company and the Vanadium Corporation of America?

A. We would have no idea how we could determine that, who would get the other 50%.

Incidentally, we have relatively few 50-50 contracts.

Q. You say you couldn't determine who got the other 50 percent? A. No.

Q. Of ferro-vanadium?

A. You think that the steel companies are going to open their purchasing books to us as a supplier?

The Court: He has answered the question: No, he didn't.

Q. (By Mr. Alioto): There was only one other competitor, wasn't there, the Vanadium Corporation of America?

A. Are you speaking of ferro-vanadium?

Q. Yes. A. You spoke of alloy contracts.

Q. I am speaking about ferro-vanadium, sir.

A. Oh, in the case of ferro-vanadium, if they were not [1613] buying from us, the steel company refused to buy from us, obviously they were Vanadium Corporation's customer.

Q. All right. The ferro-vanadium contracts were made separate with the steel companies, weren't

(Testimony of Walter Edward Remmers.)

they? You didn't put all ferro-alloys on one contract?

A. They were separate. Every ferro-alloy was separate, except that we had different grades in some cases——

The Court: Getting back to the lawsuit, was there any agreement on your part—that you know anything about, that is — that you know anything about, whereby you provided how much of this ferro-vanadium you would sell and how much the other company, your competitor, would sell?

A. No, your Honor, there was not.

Mr. Alioto: If your Honor please, in view of your Honor's question, in connection with that specific question, we will offer the document which has previously been marked as Plaintiff's Exhibit 47 in evidence, to show a document and an agreement that was made earlier but which was in existence in 1938.

The Court: The Court ruled on that matter some time ago.

Mr. Alioto: I do it in connection with the specific question raised by your Honor.

Q. Let me ask you this: Was there some change in the policy of the company in 1938? [1614]

Mr. Holland: If the Court please——

The Court: Objection sustained.

Mr. Holland: He shouldn't refer to that as an agreement. It is not an agreement.

Mr. Alioto: Well, we don't know what it is.

Mr. Holland: You shouldn't call it an agreement.

(Testimony of Walter Edward Remmers.)

Mr. Alioto: I think it is. It shows exactly what it is. But in any event——

Mr. Holland: No, it isn't.

Q. (By Mr. Alioto): Was there some change——

The Court: Just a moment. The question that the Court asked covers the time that you were inquiring about, '38 to '49.

A. Yes, sir.

The Court: Now, what I want to know is: At that time did you know of any agreement or understanding by which—that is, agreement between your company and your competitor—how much each one would sell to your various customers?

A. No, your Honor, I did not.

Q. (By Mr. Alioto): Was there ever such an agreement or understanding between the Union Carbide Subsidiary and the Vanadium Corporation of America?

A. I can't answer that question. "Ever" is a long time. [1615] The Company dates back for many years. I can only speak of the time I was associated with it and——

The Court: Limiting your answer now from '38 to '49.

A. There was no agreement of that type at that time, and I don't know how you can implement it if your sales manager — somebody didn't tell you to hold back on a certain customer, and I was in sales and nobody told me at any time to hold back on any selling of any alloy to any customer.

Q. (By Mr. Alioto): Was there such an agree-

(Testimony of Walter Edward Remmers.)

ment about which the Court has inquired, was there such an agreement in the 30 days preceding January 1st of 1938?

A. I wouldn't have any way of knowing, not the slightest. I had no interest in——

Q. In other words, you can't deny that there might have been that agreement.

The Court: Just a moment. You can argue the case later.

Q. (By Mr. Alioto): Now, I have some questions about—I just want to complete that line of inquiry about the 50-50 requirements contracts.

There were some, were there not, in which you had 50 percent of the requirements and the Vanadium Corporation of America——

A. I can't testify that there were, but if a customer [1616] insisted upon that type of contract we would sign that. We had, as I said, anywhere from 25 percent in increments of 5 percent, or some such figure, all the way up to 75 percent, some of them 90 percent of their business. They wanted to keep the door open to buy a certain amount from somebody else——

Q. Can you recall some of the steel companies that split their requirements between you and the Vanadium Corporation of America?

A. Yes, there were some——.

Incidentally, when we are talking about "Vanadium" and "some of the steel companies," I don't know whether we all understand, but when we speak of all of the steel companies we are talking

(Testimony of Walter Edward Remmers.)

about a very small fraction of the total amount of steel that uses vanadium. We use that word "all" rather freely.

The Court: Well, the steel companies with which you did business?

A. Yes. There were some that purchased from us and some that gave some of their business to the Vanadium Corporation.

Q. (By Mr. Alioto): Based on annual contracts where you each had a designated percentage, is that correct?

A. Yes. I am not so sure they always adhered to the percentage—at least, we suspected, in sales, that [1617] sometimes our competitor was getting more or that we were getting more.

Q. Now, my question, I would like to just conclude, I would like to just conclude as quickly as possible because we have been here a long time, is: Name some of those companies, those steel companies, which split their requirements between you and the Vanadium Corporation of America?

A. Oh, my, you are asking me a very difficult question. I can think of some. This goes back a long time.

The Court: Let's go back to '38. I don't want to go back——

Q. '38. Well, I would say that there were many of them split: Carpenter, Allegheny, Bethlehem split some of their business, Crucible—I am thinking of the larger tool steel people. Those are some of the major companies in which their business—

(Testimony of Walter Edward Remmers.)

not necessarily 50-50 basis — that would be utterly impossible for me to review, how their business was divided, and I wouldn't know.

Q. But they were taking the various percentages, is that it, on an annual basis?

A. No. It varied. I am sure if we would take a look at sales—. That is the reason I say "suspect"—We suspected at times the steel companies in their purchasing didn't adhere too closely to that percentage figure because one year were selling them what we suspected was a certain [1618] percentage of their business and then the next year it would go up and down and there was really quite a fluctuation from year to year.

Q. But the contracts themselves designated——

The Court: Getting to the point, did you know of any agreement now between the company you represented and the Vanadium Corporation of America by which your sales would be divided as you have indicated?

A. No, your Honor. Not only for—. I knew of no agreement of that type of ferro-vanadium or any other product that we made between our companies.

Q. (By Mr. Alioto): Just so we can conclude this matter, the contracts themselves designated a specific percentage? A. Some of them did.

Q. A specific percentage of requirements, did they not?

A. Some did, not all of them.

Q. All right. And those you named were some of the companies that did designate on the contracts?

(Testimony of Walter Edward Remmers.)

A. No. No. No, don't jump at conclusions.

Q. That is what I am trying not to do. Please don't give me any conclusion. Will you state the fact with respect to that. Did you have some contracts——

A. The facts can only be determined — I don't think there is anyone anywhere that could answer that question [1619] without going through the files and determining that——

Q. Then you don't know, is that it?

A. No one knows.

Q. Now, you were asked a series of questions by Mr. Archer about what were the problems of a new business in ferro-vanadium—— A. Yes.

Q. ——as of a specific period of time, you recall that? A. Yes, I recall that.

Q. And you gave out those problems. As a matter of fact, in 1938 was a pretty good time to get started in business, wasn't it, in this country?

A. Yes. Business was a little bit slow in '38.

Q. And it just anticipated — it was just before—— A. Just before——

Q. ——a big upsurge in business?

A. Big rush, yes.

Q. So you will concede that 1938 and 1939 was a good time to get started in business, as good as any, wasn't it? A. That's right.

Q. The economic factors were such that a new business in 1938 had a pretty good chance of prospering?

A. If the business had been established in '38

(Testimony of Walter Edward Remmers.)

and had their contacts and their lines all laid, they were all set to go when the rush came on and to meet the demands as they [1620] arose, yes, they were in an enviable position.

Q. Now, then, on the assumption that a new business in the vanadium business had a production of 5,000 pounds a month of ferro-vanadium, say in 1939, the very beginning of 1940, that business would have been, so far as the economic factors are concerned, in a good position to succeed, would it not?

Mr. Holland: I object, your Honor. That is making an assumption that is not in evidence. There is nothing in evidence about any company having 5,000 pounds a month.

Mr. Alioto: Mr. Archer's assumptions were the same way. He asked him to give a general statement to the problems of a business of this kind.

The Court: The objection is sustained. Exception allowed.

Mr. Alioto: All right.

Q. Do you recall that there came a time in 1944 when you were called upon to sell ferro-vanadium with a 70 to 80 vanadium content, to the Russians, specifically?

A. Oh, yes, indeed, I recall that distinctly.

Q. And at that time you were not producing a 70-80 vanadium, were you?

A. We had produced higher percentages. At that particular time we were producing 30-35, 50-55, we had [1621] produced some 60-65. And I recall

(Testimony of Walter Edward Remmers.)

that very definitely because I went to Washington, to the Russian Purchasing Commission, and tried to convince them to take what we had on hand instead of asking us to make speak heats and producing this material for them.

Q. But they ultimately wanted the 70-80 material, is that it?

A. Oh, they wanted everything under the sun that was different from what we were making.

Q. That was a large order, about a quarter of a million pounds, wasn't it?

A. I think that was about 200,000 or 210,000—about 210,000. I am not sure that is the figure.

Q. Was that order split between you and the Vanadium Corporation of America?

A. Oh, gee, I don't know. I don't believe so. I don't—I wouldn't know. I don't think it was.

Q. Well, was there any company producing ferro-vanadium with a 70 to 80 content in America at that time or shortly before that time?

A. Not at that moment. I can't say what anyone was doing, but I can only speak for ourselves. We were not producing at that moment and we tried to get them to accept standard material because it was very costly and this was Lend-Lease, our Government bought it and gave to the [1622] Russians.

Q. In other words, the Government actually paid you—— A. Yes.

Q. ——for the material and gave it to the Russians?

(Testimony of Walter Edward Remmers.)

A. Our negotiations were with the United States Treasury Department, but when it came to working out the technical details, the specifications and the impurities and that sort of thing, they directed me to the Russian Purchasing Commission in Washington. I talked with one of their people there.

Q. Now, you knew that prior to that time, Continental Ore Company was marketing a ferro-vanadium with a 70-80 percent, didn't you?

A. No, I did not.

Q. Well, didn't you at the time that this new competitor came into the field, didn't you acquaint yourself with the nature of the product that the competitor had?

A. I never inquired as to the percentage that he produced because it was all sold on the basis of pounds contained and actually it makes very little difference to the steel user whether he uses a 35 or a 70 percent. There are preferences. We make three grades, we make the 30-35, we make the 50-55, we make the 70-75, and it is a matter of choice. Some of the steelmakers are even so economically minded that they place a value on that excess iron that is in the ferro-vanadium and other ferro-alloys. But we offer [1623]all of them.——

The Court: I think you have answered the question.

Q. (By Mr. Alioto): You weren't offering all of them in 1941, '42, '43, '44—— A. Oh, no.

Q. Were you——

(Testimony of Walter Edward Remmers.)

A. We were trying to standardize as few specifications during the war time period as we could.

Q. It was only later you started producing the 70-75?

A. No. No, we produced higher grades. My recollection is that we were in the upper 60's, which is essentially 70—It is less than 70, depending upon how you look at it. But anyway, we were in the upper 60's before that.

Q. Since '45 haven't you gone more and more to the higher grade vanadium, higher vanadium content, in your product?

A. Yes. I think we probably produced more of the higher grade since '45. Oh, definitely, we have. As a matter of fact, we didn't sell very much of it in the earlier days. It is still sold on the basis of pounds contained valuable element in the ferroalloy, however. The percentage means little except individual preference.

Q. Now, just one other thing, in connection with your comment on molybdenum during your examination by Mr. Archer. [1624] It is a fact, is it not, that it takes approximately two pounds of molybdenum to do the same job as one pound of vanadium?

A. You can't make any general rules of that nature.

Q. Well, what is the situation with respect to the use of molybdenum in the manufacture of steel as against the use of vanadium in the manufacture of steel? You say that you can't say generally there is

(Testimony of Walter Edward Remmers.)

a two to one ratio to achieve approximately the same property?

A. No, not—. Bear in mind, I am not a steelmaker or a steel metallurgist, but in my association with the steel industry—. For example, are you speaking about high speed tool steel? When you add molybdenum as a substitute for tungsten you have to double the vanadium content. In the case of some of the structural steels, you may add ten to 1500 of vanadium or, oh, two and a half, three times that much molybdenum. So there you have got to speak of the individual steel, the type of steel that you are making, and so on.

Q. What is the type of steel in which vanadium is most used?

A. Strange as it may seem, the distribution of vanadium over the years—and this hasn't held either, but it varies so—is rather equally divided between cutting tools and engineering steels. [1625]

Q. Now, with respect to those two types of steel——

The Court: Just a moment. How is this material?

Mr. Alioto: Well, there was a previous discussion about comparative costs as between vanadium and molybdenum and I think I can wind this up with one further question, if your Honor please.

The Court: If you can do that, all right.

Mr. Alioto: The witness answered these questions that Mr. Archer put to him and I assume that Mr.

(Testimony of Walter Edward Remmers.)

Archer felt there was some relevancy on the price of molybdenum, for example.

Q. Now, in connection with these two types of steel that you have mentioned, is it not generally true that it requires approximately two times as much of molybdenum as vanadium to do about the same job?

A. If you are speaking in very rough numbers—fairly rough—yes.

Q. Yes.

A. Yes, that's right. It's extremely rough, though. I would personally say, closer to almost three to one.

Q. All right.

A. My estimate, that I have used and the figure that I have given the Atomic Energy Commission when they have asked repeatedly, in more recent times when vanadium has become plentiful; How far would we have to reduce the price of [1626] ferro-vanadium (this is the Atomic Energy)—how far would the price of vanadium have to be reduced in order to solve the surplus production that comes out with uranium? And my comment—I have stuck with this figure over the years, pulling it out of the air—my answer has always been: Until it competes with its nearest competitor, and its nearest competitor is molybdenum. And they usually reply: What price for vanadium does that mean? And I have pretty well stuck to my figure, that about $1.25 per pound of vanadium and until you get down to a figure of that type I do not believe you will cut

(Testimony of Walter Edward Remmers.)

down the molybdenum business to any appreciable extent.

Q. Finally, Mr. Remmers, so far as the use of vanadium oxide directly in the steel bath is concerned, there is matallurgical soundness, is there not, in putting fluorspar in the mixture?

A. You put fluorspar in every slag, in every electric furnace heat. It contributes nothing. You put it in a teaspoonful, in a tin can, that is one thing, but the melter that is making that heat who scoops a scoop shovel and heaps it in there is making a slag. It does no harm but it doesn't contribute anything.

Q. Specifically, is it your opinion then the introduction of fluorspar in a package of vanadium oxide makes no metallurgical contribution at all with respect to the steel [1627] industry, is that your opinion?

A. No more than a tablespoonful of fluorspar, a minute amount, compared a wheelbarrow load that they are shoveling in. It's just that little bit extra slag.

Q. But there is some metallurgical efficacy in putting fluorspar in the vanadium oxide?

A. No.

The Court: How is this material?

Mr. Alioto: Because there is a great deal of testimony as to whether we were selling Van-Ex and fooling the people with fluorspar. Mr. Holland inquired at great length about that.

(Testimony of Walter Edward Remmers.)

The Court: If you will ask that question. But you are asking a technical question. [1628]

Q. The implication has been that putting fluorspar in vanadium oxide was just like putting French dressing into the mix so far as metallurgy is concerned?

A. I think that is not true. It would be less effective than French dressing. French dressing is an oil and a reducing agent. I mean, if you are going to become facetious in this thing, you are adding oil as a reducing agent.

Q. Let us become facetious about it. So far as the metallurgy is concerned, is it your testimony that there is no efficacy at all or effectiveness in putting fluorspar into vanadium oxide?

A. Not a bit, except to get around price controls.

Q. In other words, not at all. It is just a pricing factor and a marketing factor, and you can say that as an expert who has read the literature on oxides, I take it? A. Oxides of what?

Q. Vanadium oxides or the literature on vanadium oxides.

A. I have studied metallurgy. Do you want to go into that?

Q. No. Are you saying this as an expert, as a man who has acquainted himself with the background of the literature on oxides, that there is no efficacy in putting fluorspar into it?

A. I might say——

The Court: Just a minute. This witness has

(Testimony of Walter Edward Remmers.)

[1629] stated his qualifications and he has answered the questions.

Q. (By Mr. Alioto): All right. Just let me ask: Do you plan to leave almost immediately, Mr. Remmers, or are you going to be around a few days?

A. I have no plans as yet. I had some plans to get away early, but if it is necessary, I will be happy to stay if I can contribute anything.

Mr. Alioto: We have no further questions at this time, if your Honor please.

Mr. Archer: I have no further questions of this witness, your Honor.

The Court: Very well. You may be excused.

(Witness excused.)

Mr. Archer: Shall I proceed with my next witness?

The Court: Yes.

WILLIAM JOHN PRIESTLEY

a witness called by and on behalf of the defendant Union Carbide and Carbon Company, and having been previously duly sworn, testified as follows:

The Clerk: Will you please state your name and address?

The Witness: William John Priestley, 105 Broadview Avenue, New Rochelle, New York.

Direct Examination

Q. (By Mr. Archer): Mr. Priestley, what is your present occupation?

(Testimony of William John Priestley.)

A. I am retired. I was——

Q. Well, I am going to limit my questions to the period 1938 to 1949, and I am going to ask you: Do you recall what offices you held in the Union Carbide Companies during that period of time?

A. 1938, did you say?

Q. Yes, to 1949.

A. I was at different times vice-president of the Metallurgical Company; I was president and director of the Metallurgical Company; I was a vice-president and director of Electro Metallurgical Sales; I was—did you say Union Carbide?

Q. Well, yes.

A. I was a director and president of U. S. Vanadium and I was a vice-president and a director of Union Carbide Corporation—not all of those at one time.

Q. I believe you became a director of United States Vanadium in 1945 and president of United States Vanadium in 1947?

A. That is correct.

Q. And in 1948 you became a director of Union Carbide and Carbon Corporation, the parent corporation? [1631] A. That is correct.

Q. During the period 1938 to 1949 why didn't Electro Metallurgical Sales decrease the sales price of ferro-vanadium from the $2.70 range to the $2.25 range?

A. It wasn't reduced because it would have been futile for us to have reduced the price. Vanadium

(Testimony of William John Priestley.)

still had been diminishing in production, oh, from back in 1920's——

Q. Just start with the period 1938.

A. Well, within that period I made some figures at one time and I figured that in order to compete with the steels that had been introduced in industry, molybdenum steel, manganese steel, plain carbon steel, we would have had to have reduced the price of vanadium to 60 cents per pound in order to compete with the carbon steel or the steels I have mentioned.

Q. You mean 60 cents per pound of vanadium oxide, or per pound of ferro-vanadium?

A. Per pound of ferro-vanadium.

Q. That is per pound of contained vanadium?

A. Per pound of contained vanadium, that is right.

Q. Did you have any knowledge during this period of any agreement between the officers of Union Carbide and its subsidiaries on the one hand and officers of Vanadium Corporation of America on the other hand as to the prices to be charged for vanadium products or ore? [1632]

A. There was never any agreement like that during that period—or any other period, so far as I know.

Q. We are just talking about the period 1938 to 1949.

A. Yes. There was no price agreement.

Q. Did you or do you have any knowledge during that period of time of an agreement during that

(Testimony of William John Priestley.)

period of time between the officials of Union Carbide and its subsidiaries on the one hand, and the officials of Vanadium Corporation of America on the other hand as to particular customers for vanadium products which would be given to one or the other of the companies or sharing the purchases of particular customers?

A. There was never any allocation of the business.

Q. Mr. Burwell has testified that Mr. Dutot told him in July of 1946 that he had received instructions from you and from Mr. Remmers not to approach customers of Vanadium Corporation of America.

Now, first, in July of 1946, what was Mr. Dutot's position?

A. Mr. Dutot was sales manager in the Pittsburgh office of Electro Metallurgical Sales Company.

Q. Did you give Mr. Dutot or anybody else such instructions? A. I never did.

Q. Did you ever hear Mr. Remmers giving Mr. Dutot [1633] or anybody else such instructions?

A. I never did.

Q. Mr. Burwell has testified that in the summer or latter part of 1946, there was a meeting of certain officials of Union Carbide and Carbon Corporation consisting of Mr. Haggerson, yourself, Mr. Rush, Mr. Davison, Mr. McClure and Mr. Burwell on the 18th floor of the general offices in

(Testimony of William John Priestley.)

New York City. Were you present at such a meeting? A. I was.

Q. Were all those individuals present at the meeting?

A. I can't say that, because my memory does not serve me well enough, but they were all members of the operating committee, not the executive committee. I think you said executive committee.

Q. I said executive officials.

Well, what kind of a meeting was it?

A. It was an operating committee, composed of the presidents of the different companies of the corporation who met weekly to discuss general operations, budgets and expenditures.

Q. What was the purpose of this particular meeting which Mr. Burwell attended?

A. Well, this was no special meeting, but he was invited to attend the meeting which you refer to, and he had prepared for the U. S. Vanadium Company a budget for expenditures for [1634] the following year. Normally a budget of that kind would have been presented by myself as vice-president in charge of the alloys and metals division. I did not agree or consider that all the money he requested was necessary. I thought some of it was decided to be very unnecessary, and I felt the proper step would have been for Mr. Van Fleet to propose the budget and argue it with the committee if the question came up. Van Fleet didn't want to handle it.

So I wanted to get the thing settled and I ar-

(Testimony of William John Priestley.)

ranged with the—I explained the situation to the president of the corporation, with the chairman of the operating committee, and asked if he would have any objection to Burwell, who was very much interested in getting this approved, presenting his own facts and figures to the committee, and he didn't.

And that was how he got into the meeting.

Mr. Archer: Before I go into the meeting, does your Honor want to adjourn?

The Court: I think we will rest a little while. We will stand recessed until 2:00 o'clock.

(Whereupon an adjournment was taken until 2:00 o'clock p.m. this date.) [1635]

June 17, 1958, 2:00 o'clock p.m.

WILLIAM JOHN PRIESTLEY

a witness called by and on behalf of defendant Union Carbide and Carbon Corporation, having been previously duly sworn, resumed the stand and testified further as follows:

Direct Examination—(Continued)

Q. (By Mr. Archer): Mr. Priestley, when we finished at noon, you had just described a meeting of the operating committee in the latter part of 1946 which you attended and which Mr. Burwell attended and you had stated the purpose of the meeting had to do with the United States Vanadium budget.

Now, would you tell us what occurred at that meeting?

(Testimony of William John Priestley.)

A. The budget covered the tungsten, vanadium and uranium products. And my controversy, my objection to approving the budget, was the amount of money that was to be spent at the tungsten chemical plant at Henderson, Nevada. When the members of the committee started to question Mr. Burwell, he became very indignant and he created a very bad impression.

Mr. Alioto: I make a motion to strike the conclusion and have him state what was said or done.

The Court: State what was said or done.

The Witness: Beg pardon, your Honor?

The Court: You answered that he made a very bad impression. That is a conclusion.

Just go ahead. Just state what was said and done.

A. Well, Burwell was very much in favor of building this plant and making metal chemicals at Henderson, Nevada, and I opposed it from the beginning because he had not worked out or found any progress with the products that he was making.

Q. (By Mr. Archer): Well, what we want, Mr. Priestley, is just what happened at the meeting, what was said at the meeting, as best you can recall the substance of what was said or—let me put it this way, Mr. Priestley:

Was the budget for Henderson, Nevada, approved at this meeting, or not?

A. The entire budget was not approved until later, after that was taken out. The plant at Henderson was closed down early the following year.

(Testimony of William John Priestley.)

Q. Was either vanadium or uranium produced at the plant at Henderson, Nevada?

A. No.

Q. Mr. Burwell has testified that at this meeting or at the time of this meeting you took him somewhat to task for spending money for uranium when Union Carbide would produce vanadium it couldn't sell, and that you indicated that you didn't think uranium was of any immediate importance to the corporation.

Did you do this or did you make these statements to [1637] Mr. Burwell?

A. That is not correct. We were purchasing for the——

Q. Well, just answer the question. Thank you.

Mr. Burwell also testified that at this time you told him that you did not see any justification for producing more vanadium at the uranium plant and that he told you that it was not his business to sell vanadium and that if you couldn't sell vanadium to please say so and he would take over the job of selling vanadium and that he would assure you that he wouldn't sell vanadium or make a deal with the Vanadium Corporation of America.

Did you make these statements to him or did he make these statements to you at that time?

A. Not to my memory.

Q. Mr. Burwell further testified that in the fall of 1946, you called him and told him not to agree to a sale to the Treasury Department of vanadium oxide and that you said that it would be better to

(Testimony of William John Priestley.)

give the Vanadium Corporation of America part of the business, and that he, Burwell, should withdraw the offer or go to Washington and tell them that they ought to consider the other vanadium producer in the business.

Did you make such statements to Mr. Burwell?

A. I certainly did not.

Q. Mr. Burwell further testified that in October of 1946 you and he and Mr. Rafferty had a meeting in Mr. Rafferty's [1638] office on the 18th floor of the general offices in New York City.

Do you recall such a meeting? A. I do.

Q. What subjects were discussed at this meeting? A. Tungsten and vanadium.

Q. At this meeting in Mr. Rafferty's office, Mr. Burwell has testified that Mr. Rafferty asked you what you meant about giving Vanadium Corporation of America a part of the business and that you stated that Mr. Burwell ought to go to Washington and tell them that Vanadium Corporation of America ought to be considered.

Were these statements made at that time?

A. No, they were not.

Q. Mr. Burwell further testified that Mr. Rafferty said that it would be very unwise to go down to Washington and ask for V.C.A. to be included in the business (by V.C.A. I mean Vanadium Corporation of America) and that you replied that you had heard from Mr. Swain that Mr. Swain had prevailed upon Vanadium Corporation of America to increase the price of ferro-chrome silica

(Testimony of William John Priestley.)

to the point that it would not be used as a substitute for low-carbon ferro-chrome, and that you did not want to antagonize Vanadium Corporation of America at this time.

Did you make these statements? [1639]

A. Swain had never told me that and I have never made those statements.

Q. What was Mr. Swain's position at that time?

A. President of the Electro Metallurgical Sales.

Q. Mr. Burwell further testified that Mr. Rafferty asked you whether you were still conniving on this business with Vanadium Corporation of America.

Did Mr. Rafferty make such a statement to you?

A. I can't remember any such statement like that, no.

Q. While you were president of United States Vanadium Corporation did you personally handle the production of uranium for the Atomic Energy Commission or the negotiations for those contracts?

A. No, I did not.

Q. Who handled this matter?

A. Walter Remmers.

Q. That is the witness who previously testified?

A. The witness who was on the stand before me.

Q. Did you ever discuss the production of uranium with any member or employee of the Atomic Energy Commission?

A. No, I did not.

(Testimony of William John Priestley.)

Q. Do you know Mr. Gustafson of the Atomic Energy Commission?

A. I knew of him, but I never met him.

Q. Were you an advisor to the Atomic Energy Commission? [1640] A. No, I was not.

Q. I now show you a copy—this is my own copy—of what is Exhibit 73 in this case.

It is a letter dated May 10, 1944 from yourself to Mr. Dutot. I think it is a little more legible than the court copy, and I ask you whether you are familiar with that letter.

A. (Witness examining.) I remember this letter. I wrote it.

Q. You state in the letter that you have recently refused to supply vanadium oxide and columbite with combined reducing agents on the ground that you are primarily in the ferro-alloy business and are not interested in the sale of ores, especially when you can make use of large smelting facilities.

To what kind of purchaser did you refer when you stated that you had recently refused to supply vanadium oxide and columbite with combined reducing agents?

A. Well, the reference was to steel companies, and this letter primarily was written in reference to the sale of calcium tungsten briquettes.

Q. Why had you refused to supply vanadium oxide and columbite with combined reducing agents to steel companies, if you had?

A. Well, we were manufacturers of ferro alloys,

(Testimony of William John Priestley.)

and we [1641] were interested in selling ferro alloys, when we could sell them. And I wrote this letter because evidently one of our enthusiastic salesmen had apparently taken an order for calcium tungsten briquettes from some customer to whom he couldn't sell ferro tungsten, and at that particular time that I wrote this letter, as I say in here, we were buying tungsten ore in order to take care—to fill our orders that we had for ferro tungsten, and if we had started the business of selling oxides instead of smelted products, that we had a big plant and capacity for, we would soon be out of business.

The Court: Did you need this particular material? Did you need that in your business? This oxide.

A. Yes, we did, Judge. In order to make the ferro-tungsten we had to have tungsten ore, and these products, the calcium tungsten briquettes that I referred to here, would have deprived us of having that much ore to make ferro-tungsten, for which there was a big demand at that time, and deprive us the use of our smelting capacity.

Now, our situation on making ferro alloys is something like this, we will project our requirements of ferro alloys months and years ahead. As the steel industry increases their capacity, we have to be prepared to serve them, because of the long-term requirement contracts we have from them. So we build up our plants to correspond what they do in increasing their steel capacity. [1642]

(Testimony of William John Priestley.)

Now, if we went into the practice of selling ore, we would have all these idle plants on our hands, for which we spent millions of dollars.

The Court: Can you state approximately what the investment of Union Carbide Company is in these plants?

A. Well, one plant would have cost us 15 or 20 million dollars, and we had six or seven plants, some of them larger than others, and these plants had supplementing them large power plants. Instead of buying power, we would build steam plants and those steam plants would run up to 160 kilowatts, which is a huge plant. We also had two hydro-electric plants.

Now, you can see what would result if we sold ourselves out of raw materials to keep those plants in production. It would not only have put us out of business, we would have thrown a lot of men out of work.

The Court: In other words, your position is that you declined to sell this material because you needed it in the ordinary operation of your business? A. That's right, your Honor.

The Court: Proceed.

Mr. Archer: I have no further questions of Mr. Priestley, your Honor.

Cross-Examination

Q. (By Mr. Alioto): Mr. Priestley, do you remember in 1938 you sold large [1643] quantities

(Testimony of William John Priestley.)

of vanadium oxide to the Vanadium Corporation of America at 80 cents a pound?

A. We sold—I am not sure of the date, but we sold them large quantities of the oxide, that is true.

Q. Well, the record in this case shows that in 1938—we won't go behind that at the moment—or any moment—in 1938 you sold the Vanadium Corporation of America 130,052.27 pounds of vanadium oxide at 80 cents a pound of V_2O_5 contained. Now, it also discloses, and I want to read you from the record in this connection, under an agreement between the Vanadium Corporation of America and the United States Vanadium Corporation, dated June 30, 1939, the United States Vanadium Corporation milled vanadium ore belonging to Vanadium Corporation of America and delivered to Vanadium Corporation of America 75 percent of the vanadium oxide content of such ore.

United States Vanadium Corporation made a processing charge to Vanadium Corporation of America for this service of 65 cents per pound vanadium oxide contained on all amounts delivered in 1937, and 75 cents per pound vanadium oxide contained per all amounts delivered during 1940.

And then here are the figures following:

517,847 pounds were delivered under this contract in 1939, and 200,000 pounds in 1940.

Now, you recall that this contract was referred to [1644] as the Maggie C. contract, don't you, Mr. Priestley?

A. No, I don't. I was not in the United States

(Testimony of William John Priestley.)

Vanadium Company at that time and I had nothing to do with that transaction. I was in charge of the service and development work of the Electro Metallurgical Company. [1644-A]

Mr. Alioto: We will get the figures down, and then we will go back to whether or not you had anything to do with this.

In 1939, 517,847;

1940, 200,000.

That is not very artistic, but that looks like 717,847 pounds.

Q. (By the Court): Who was handling that deal for your company? Who would have handled it?

A. I am not sure at that time whether the Electro Metallurgical Sales Company would have handled it, or whether the U. S. Vanadium representatives would have handled it. You are giving figures that I can't verify, because I don't think I ever saw them before.

Q. (By Mr. Alioto): Sir, these figures are already in evidence, so we won't ask you to verify them, but I want to ask you about them particularly in respect to certain questions the Court asked you a moment ago as to whether or not you needed this material and therefore did not sell it.

A. I beg your pardon.

Q. I don't indicate there was anything wrong about that.

You do recall, however, that there were some transactions between the Vanadium Corporation of

(Testimony of William John Priestley.)

America and the [1645] United States Vanadium Company?

A. I heard, as you would in a company like that, that they had sold a large quantity of ore.

Q. I am talking about vanadium oxide.

A. I am talking about vanadium oxide, not ore.

Q. Yes.

A. And the reason they did it was because—this was before we got into the war.

Q. This was 1938?

A. Yes. And they had vanadium oxide and vanadium ore running out of their ears—stockpiles for years and years ahead. And we needed cash. The company needed cash. So the logical thing to do when someone comes along and wants to buy something that you don't need, the logical thing to do is to take it for the cash you need.

Q. Is that your explanation as to why you sold your competitor 130,000 pounds in 1938?

A. As far as I know. I did not make the deal. That is what I was told.

Q. Weren't you, at or about the same time, buying vanadium oxide from independent sources for approximately a dollar?

A. I don't know. I wouldn't know that, because I wasn't dealing with the—had no dealings whatever at that time with the U. S. Vanadium Company.

Q. Your testimony is that in 1938 vanadium oxide was [1646] coming out of your ears. There was a great supply.

(Testimony of William John Priestley.)

The Court: He has answered the question. Eliminate the argument.

Mr. Alioto: I am going to call this to his attention.

The Court: You have asked him the question. He has answered the question. Eliminate the comment.

Q. (By Mr. Alioto): My questions is whether in 1939 that same condition prevailed. Was it still coming out of your ears in 1939?

A. I don't know. I wasn't in a position to know.

Q. Weren't you consulted with respect to the advisability of making a transaction with your only competitor in ferro-vanadium by the terms of which your competitor winds up with 717,000 pounds of the raw material to make the products with which they were competing with you?

A. No, I was never consulted, because it was not my responsibility whether that was sold or not. I was in charge, as I told you, of the technical service and development work, or selling more ferro alloys, but I would never have been consulted on a thing like that. I did not become president of the Electro Metallurgical Company until 1944.

Q. Mr. Priestley, wasn't it perfectly plain in 1938 that to the extent that you supplied your only competitor with vanadium oxide, that that was going to make more difficult [1647] your task of selling the ferro-vanadium as a finished product? That was plain, wasn't it?

A. No, I don't think so.

Q. Do you think that you could have converted

(Testimony of William John Priestley.)

this oxide that you sold to V.C.A. at 80 cents into ferro-vanadium and make more money out of it?

A. No, we would have had ferro-vanadium on our hands, then, instead of vanadium oxide.

Q. I am sorry.

A. I will end that right there.

Q. Go ahead.

A. That is sufficient. We would have had ferro-vanadium on our hands that we couldn't sell, instead of vanadium oxide.

Q. Mr. Priestley, wasn't there a market in 1938 for all of this vanadium oxide at $1.30 a pound in Europe at the same time that you were selling it to V.C.A. for 80 cents?

A. Who would have bought it?

Q. I am asking you whether——

A. I am asking you who would have bought it?

Q. The vanadium used was in Europe.

A. What is that?

Q. The vanadium use is in Europe.

A. I knew nothing about that.

Q. You do not know that the market price of the vanadium oxide in Europe in 1938 was $1.30?

A. I couldn't tell you that, because I didn't follow that. That didn't come into my line of activity.

Q. If that were a fact——

The Court: He has answered your question. He doesn't know anything about it. Let us not have any more argument on that.

Q. (By Mr. Alioto): Mr. Priestley, if the evi-

(Testimony of William John Priestley.)

dence in this case otherwise establishes that the price of vanadium oxide in Europe at this time was $1.30, if that is already in this record, can you tell us what business reason there was in 1938 for selling it to your only competitor for 80 cents a pound?

A. I can't give you the reason because I don't know the facts. I don't know what the market was in Europe. I don't know whether there was a demand for it there. I don't know what the price was. And I assume that our people, in disposing of that oxide, sold it to whom they could sell it at the highest price they could get.

Q. I want to ask you about this Maggie C. arrangement. Maybe we can find somebody who does know something about it.

You have certainly heard before you came to the stand today that there was this arrangement whereby your company mined the ores from the V.C.A. mines?

A. That is all I know about it, what I heard this morning, and I couldn't tell you what the story was if you asked me now, [1649] because it was far removed from my activities.

Q. Mr. Priestley, in 1938 weren't you very vitally concerned with fixing the policy of your company with respect to vanadium sales?

A. We were—yes, I was interested, and shared —probably was consulted in ferro-vanadium sales, but not ore sales.

Q. Weren't you, as early as 1934, given the

(Testimony of William John Priestley.)

special job of making a study of the automobile industry for the purpose of determining what the policy of your company should be from there on in? A. Yes.

Mr. Holland: I object, your Honor.

The Court: Don't answer the question. Disregard it.

The Court has told you several times not to go back beyond 1938.

Mr. Alioto: May I make plain what I am doing here, if your Honor please?

The Court: No, I don't want any explanation. I just want you to follow the order of the Court.

Q. (By Mr. Alioto): In 1938, Mr. Priestley, did you have a policy for vanadium which had actually been conceived and formulated prior to 1938? [1650]

Mr. Holland: I object.

The Court: Objection sustained.

Q. (By Mr. Alioto): In 1938 did your company have a policy of supplying the Vanadium Corporation of America with vanadium oxide so that that company would get most of the ferro-vanadium sales?

A. Oh, you are stretching a point.

The Court: Just answer yes or no.

The Witness: Give me your question again.

(Question read by the reporter.)

A. I never heard of a policy like that.

Q. (By Mr. Alioto): What was the reason for

(Testimony of William John Priestley.)

supplying the Vanadium Corporation of America with the raw materials?

The Court: Just a moment. Argumentative. He has stated that he didn't know anything about it and he didn't have anything to do with that.

Mr. Alioto: He has also stated that there was no such policy, if your Honor please. Now, it seems to me that I should have a right, as they were given the right, to cross-examine as to the nature of that policy and its origin.

The Court: You can cross-examine, but not argumentatively.

Mr. Alioto: All right, if your Honor please. I will attempt not to cross-examine argumentatively. [1651]

Q. (By Mr. Alioto): Had you, in 1938, a policy which was predicated upon the supply by your company of raw materials to the Vanadium Corporation of America?

A. I never heard of any policy. When you talk about a policy, my interpretation of a policy is some rule that you set that you follow from time to time. This is only an incidental incident, as I understand it, and I had nothing to do with the sale of that vanadium oxide, so I can't tell you whether anyone else had a policy. I never heard of a policy.

Q. Is it your testimony that the 1938 sale of 130,000 pounds was just an incidental, casual sale?

A. I understand it was. I didn't make it, but I understood, as I have told you, that we had—I don't

(Testimony of William John Priestley.)

know how many years—or the U. S. Vanadium Company—how many years of stock of vanadium oxide they had ahead, and they could never see that the demand for ferro-vanadium would use that. So they did the best thing they could to get their money out when they could. That is what I had been told and that is all I know about it.

Q. Mr. Priestley, you are not, in fact, referring to a much earlier period than 1938 when you say they had these big stocks on hand?

A. I am not familiar with the ore situation enough to even discuss it with you. [1652]

Q. In 1938 was the Vanadium Corporation of America in some kind of trouble with the Peruvian deposits, or with their deposits in the Peruvian Andes?

A. I don't know. That did not come under my duties as vice-president in charge of research and development.

Q. We previously had testimony in this case, Mr. Priestley, that Electro Metallurgical Company was a subsidiary of the Union Carbide, and that the United States Vanadium Corporation was a subsidiary of the Electro Metallurgical, and that the Sales Company was a subsidiary of Carbide, as was Electro Metallurgical Sales.

In 1938 what was your position with Electro Metallurgical Company, if you recall it?

A. I was in charge of research—I mean technical service and development.

Q. And that included, didn't it, some consider-

(Testimony of William John Priestley.)

able voice in the marketing policy of the company, did it not? A. Yes.

Q. Didn't that service also extend to activities which were carried on by United States Vanadium Corporation?

A. No, I did not become active in the United States Vanadium Company until 1947.

Q. And then you became vice-president of that company? A. I became the president.

Q. The president of that company. [1653]

Now, then, weren't there regular meetings from 1930 on between the various operating men in U. S. Vanadium, Electromet, and the Sales Company?

A. No. The United States Vanadium group never attended one of these meetings that you refer to, these weekly meetings, or semi-weekly meetings.

Q. You had some weekly meetings with the Electro Metallurgical Company, then, didn't you?

A. Yes.

Q. Beginning when?

A. Oh, they went back I don't know how long.

Q. At least in 1938 on? A. Yes.

Q. That is correct, is it not?

A. That is right.

Q. We won't go beyond that.

At those meetings didn't anybody ever say "Our only competitor in the ferro-vanadium business is getting supplies from us, its raw material and supplies from us, at an 80-cent price"?

A. I never heard that.

(Testimony of William John Priestley.)

Q. You never heard that?

A. The men in there wouldn't have known about it. Well, there would have been men from our research laboratory, men from our works department, and our service men. [1654]

Q. The men from your research department. You mean the Union Carbide research organization? A. Yes.

Q. They wouldn't know you were getting——

A. No, no, they had absolutely nothing to do with marketing, or the policy of marketing anything. Their function was to develop new uses for alloys, new types of steel, which would enable us to sell more alloys and to improve the process of making ferro alloys so as to lower the cost.

Q. Isn't it a fact that the men in your research department in 1938 had known for at least three years that you were supplying the Vanadium Corporation of America?

A. I can't answer that. I don't know. I don't think they did.

Q. Let me show you a copy of the document marked 47 for identification in this case. Would you examine that, and without revealing what it is, or anything else, state to me whether——

A. This refers to——

Q. Just a minute. Don't tell us what it is.

Let me ask you this question——

A. There is no use of my telling you anything, because this is 1935.

Mr. Holland: I object. [1655]

(Testimony of William John Priestley.)

Q. (By Mr. Alioto): My question is this: Isn't it a fact that in 1938 the men in your research department, the Union Carbide research department, were intimately acquainted with the fact that the Vanadium Corporation was getting its supply of raw material in part, in very substantial part, from the United States Vanadium Company?

A. Well, if they knew it, I don't know. There was no reason for them knowing it unless somebody told them about it.

Q. Hadn't that department made a very exhaustive study——

The Court: He has answered the question now.

Mr. Alioto: I would like to cross-examine him on it.

The Court: You can cross-examine, but you can't argue with the witness.

Mr. Alioto: I won't argue. I just want to cross-examine him on that fact.

The Court: Put it in the nature of a question, instead of an argument.

Q. (By Mr. Alioto): State whether or not, in 1938, your research department, with whom you were having these weekly meetings, had, prior to the 1938 meetings, made an exhaustive study of the whole vanadium situation, including the extent to which the Vanadium Corporation of America was dependent upon the United [1656] States Vanadium Company for its supplies of raw material.

Mr. Holland: Same old objection to the same old question.

(Testimony of William John Priestley.)

The Court: Objection sustained.

Now, in this case, in order that the jury may understand, this action was brought for damages because of the acts of these defendants. Now, this plaintiff did not come to America until 1938, and so nothing that these defendants could have done prior to that time would have any effect on him, because he was not here; he was not in business.

Now, the Court has limited this examination, therefore, to what acts these defendants committed after this plaintiff came into the business himself.

Mr. Alioto: If your Honor please, I think it ought to be fair on my behalf to state that our contention is that there existed in 1938——

The Court: No, I don't want you to make any argument at this time. You have filed your complaint and you have asked for damages because of conduct of these defendants, certainly after your man came here; not what they did back in 1935, 1926 or 1927. That is immaterial.

Mr. Alioto: Even if it evidences the agreement in 1938 and 1939?

The Court: Absolutely. It is immaterial.

Mr. Alioto: For example, your Honor, the witness [1657] said this was a casual sale in 1938. I can prove it was not, if your Honor will let me.

The Court: No, I don't want your argument. If you will just limit yourself to asking questions, we will get along.

Q. (By Mr. Alioto): I asked you about a joint operation on vanadium oxide between your com-

(Testimony of William John Priestley.)

pany and its only competitor in the ferro-vanadium field in 1939 and 1940. That is referred to as the Maggie C. claim. You said you had not heard about this until you came to this court. Was there another deposit called the Dry Valley deposits, which were the subject matter of some kind of joint operation between your company and its only competitor, the Vanadium Corporation of America?

A. I don't know.

Q. Which carried down to 1942?

A. I don't know about that.

Q. You never heard of the Dry Valley deposits?

A. No. If I did I have forgotten about it. I don't know.

Q. Did it ever come to your attention, sir, after 1938, that the Vanadium Corporation had purchased certain rights in properties which were known as the Dry Valley properties—rather, that the United States Vanadium Company had purchased certain rights, and that they thereafter transferred their rights to your company, to the Vanadium Corporation of America, [1658] rather, and that the Vanadium Corporation of America thereafter let your company mine those deposits after 1938?

A. That is a detail I knew nothing about.

Q. Do you know whether or not the chief managing agents of United States Vanadium Company—well, let me—I will not assume who they are—Mr. Van Fleet was certainly your chief managing

(Testimony of William John Priestley.)

officer, of the United States Vanadium Corporation, was he not? A. He was the president.

Q. Yes. A. Yes, sure.

Q. He was the main man, actually. And who was his assistant in connection with the carrying on of his duties?

A. I think Burwell was his assistant.

Q. And Burwell was also the mining superintendent, wasn't he?

A. I am not sure whether he came in to that or John Hill or——

Q. And Burwell was at one point the vice-president of this company, the United States Vanadium Corporation, was he not?

A. I think so.

Q. And he was also a director of this company?

A. I think so.

Q. Now, did it ever come to your attention, Mr. Priestley, that Mr. Burwell and Mr. Van Fleet had meetings with Mr. Bransome of the Vanadium Corporation of America at which they discussed the prices of ore to be paid to miners?

A. I never heard of such meetings, and I wouldn't know [1659] because they didn't report to me. They were working independently. Van Fleet was running the United States Vanadium Company. I don't know who he talked to.

Q. So if there were meetings with your competitor, you wouldn't have known about it?

A. No.

Q. In 1938 or any other time?

(Testimony of William John Priestley.)

A. No. I told you that over and over.

Q. All right, sir.

Did it ever come to your attention, sir, that the plaintiff company, the Continental Ore Company, had made requests of your company to be supplied with vanadium oxide at $1.10 per pound?

A. When?

Q. 1940 on.

A. I never heard of the Continental Ore Company until this suit was brought against our corporation.

Q. How about the Apex Smelting Company?

A. I knew the Apex Smelting Company because as the service and development man I had called on them in the line of duty selling them silicon metal and other ferro alloys and—or other alloys, possibly, but I never knew that they were interested in making ferro-vanadium until I heard about this suit.

Q. You mean that in 1942 you did not know that there was [1660] one other ferro-vanadium producer in this country, namely, the Apex Smelting Company, under a joint arrangement?

A. I hadn't heard about it, to my recollection, no.

Q. Well, weren't you the chairman in Washington of a W.P.B. industry committee that had to do with this steel?

A. Well, this is not steel.

Q. No, I understand that. But weren't you such a chairman?

(Testimony of William John Priestley.)

A. I was director or head of a—I was trying to think of the proper name—they had so many committees. The alloy steel division of the steel branch.

Q. Yes. And you had a vanadium director under you, didn't you, a man named Jenks?

A. That didn't come under the steel division.

Q. Well——

A. Or the steel branch, either.

Q. In this alloy branch, did ferro vanadium come within the scope of its work?

A. No, oh, no. No, that was a separate thing altogether.

Q. In any event, your testimony is that even in 1942 you didn't know there was another competitive producer of ferro-vanadium?

A. I can honestly say I don't recall that.

Q. All right.

A. I don't think I knew. [1661]

Q. Now, Mr. Priestley, your counsel asked you about a meeting in December of 1946 which you called a meeting of the operating men.

A. Yes.

Q. Do you have that meeting in mind? That is the meeting that Mr. Burwell was invited in to make a request, a budget request, with respect to the production. A. That's right.

Q. All right. Now, isn't it a fact that at that meeting the principal business discussed by Mr. Burwell was the fact that he and Mr. Van Fleet had gone over their budget by about $70,000 in

(Testimony of William John Priestley.)

fixing up the Rifle plant for the production of uranium and vanadium, wasn't that the thing that was discussed by Mr. Burwell at that time?

A. It was the whole budget that was presented. As I said before, the thing I objected to was the money that he was planning to spend at Henderson, Nevada, making tungsten chemicals. He had been spending money there for many months, for which he had no appropriation, and the accounting department told me when I got into this thing that he was planning to reimburse the—reclaim the money for his treasury when he sold the products that were going to be made at that plant, and when we closed the plant down, in 1947, after I became the president, he had spent about a million and a half dollars that we got no return for. [1662]

That was my objection to that budget, why I wouldn't present it to the operating committee.

Q. Well, don't you recall there was also a discussion about some expenditures he had made at the Rifle plant which were over-budget expenditures? A. Well, they were minor.

Q. About $70,000, wasn't it?

A. That's likely to happen. That wasn't the crucial thing or the critical thing.

Q. All right, regardless of whether it was crucial or critical, that was discussed at that time, was it not, this $70,000 amount that he went over the budget on?

A. No, that wasn't the thing he was criticized for.

(Testimony of William John Priestley.)

Q. No, I am not saying he was criticized for that or anything else at the moment. That was discussed at this meeting, was it not, though, Mr. Priestley?

A. I judge it was. The budget was discussed. Yes, he presented it and told what the facts were.

Q. Now, it was customary in the usual course of the business of your company that if a man did go over his budget, even by $70,000, that that would have to be brought up in connection with the budget approval, isn't that correct?

A. Well, he would have to explain it.

Q. Sure.

A. And the budget would probably have—the budget would [1663] have been increased. But there was never any objection to the operating committee doing that.

Q. Now, don't you recall that Mr. Burwell explained at that meeting that he had gone over his budget at Rifle by $70,000 because he was getting the plant ready for uranium?

A. That is why they didn't object to it.

Q. All right. And then don't you recall further that at that juncture you said to him: "Where are you going to sell the vanadium that you are going to get from the uranium production?"

A. I never made a statement like that. That wasn't worrying me one bit, because we were selling the vanadium oxide that was produced along with the uranium oxide, we were selling all the vanadium oxide to the government.

(Testimony of William John Priestley.)

Q. Isn't it a fact, Mr. Priestley, that your company adopted as its policy of recommendation to the United States Government that the uranium production should be geared to the vanadium sales?

A. No, no such thing at all. We were more patriotic than that.

Q. I am not suggesting any patriotism here.

A. ——we never would have gone to Paducah with all this atomic energy——

Q. Mr. Remmers is the expert on patriotism. I am not suggesting there was anything unpatriotic here at this juncture.

A. I don't want you to think we weren't, either.

Q. Now, Mr. Priestley, do you recall that there came a time in 1947 when Mr. Gustafson of the Atomic Energy Commission issued a statement to the effect that its policy on the production of uranium would be geared to vanadium sales?

A. I never heard that. Walter Remmers was following that all the time. Walter would be familiar with that, I wouldn't.

Q. Let me——

The Court: Now, if he didn't know anything about it——.

Go ahead.

Mr. Alioto: Let me show it to him, if your Honor please. Maybe he will remember something about it.

The Court: Go ahead.

Q. (By Mr. Alioto): I want to show you and call your attention to the statement of Mr. Gustaf-

(Testimony of William John Priestley.)

son, which is in evidence here as 59-A, that "Since the estimated annual production of the Colorado Plateau, even under an accelerated program, would be small in relation to the total U. S. requirements, and to supplies available from foreign sources, it appeared more economical to obtain the uranium as a by-product from vanadium operations which were geared to the vanadium market."

A. What year was that?

Q. I call your attention——. December '48.

Now I call your attention to that statement and ask if [1665] that is not in fact the policy declaration which your company advised the Atomic Energy Commission on.

A. I don't believe we ever——. Who wrote this thing?

Q. Mr. Gustafson.

A. Well, he was in the Atomic Energy Commission.

Q. Yes. I thought I made that plain. I am sorry, sir.

This is a release by the Atomic Energy Commission. Now, my question is——

A. Well, who advised him about that?

Q. That is what I want to know. Was it your company his advisor on the potential of the Colorado Plateau, its adequacy or inadequacy to meet the uranium demands of this country?

A. I never remembered hearing of advice being given to him on the subject.

Q. Was it not a fact that your company was the

(Testimony of William John Priestley.)

advisor to Mr. Gustafson and the Atomic Energy Commission on the potential of the Colorado Plateau?

A. I think the Atomic Energy Commission, I assume or would judge, would get it from everyone that was there that was interested in producing uranium. We weren't their sole advisors.

Q. But you were one of them, were you not?

A. I think we were, yes.

Q. And weren't you the advisors that was most familiar with the Colorado Plateau because of your history there? [1666]

A. I can't answer that. I couldn't answer that. I never heard of him getting advice like that.

Q. To complete this meeting, is it not a fact that at that meeting Mr. Burwell told you that if you would stop making deals with the Vanadium Corporation of America you wouldn't have any trouble selling vanadium? A. No.

Q. Did Mr. Burwell——

A. I never heard that from anybody.

Q. Did Mr. Burwell or Mr. Van Fleet ever tell you, sir, that you ought to stop making deals with the Vanadium Corporation of America and sell vanadium on your own?

A. We never made a deal with them.

Q. My question is: Did Mr. Burwell ever tell you? A. No.

Q. Did Mr. Rafferty ever tell you that you were not to make deals with them?

A. No. Well, we never made deals with them.

(Testimony of William John Priestley.)

Q. Then your statement is that no officer or director of any Union Carbide's subsidiary, including the United States Vanadium Corporation, ever told you that you ought not to make deals with the Vanadium Corporation of America?

A. No, because we never made deals. They had no reason to tell me not to make deals.

Q. Did you ever hear from any officer or director of the [1667] United States Vanadium Corporation that you ought not to supply the Vanadium Corporation of America with the raw material with which they were going to compete with you? Did you ever hear that statement made?

A. No. I think they were—they were shut down. I think they were shut down when they shipped some of that stuff.

Q. You mean the Vanadium Corporation of America were shut down?

A. No, the United States Vanadium Corporation.

Q. But in any event, nobody ever told you that you ought not to supply raw material to them, is that the statement? A. No.

Q. Did Mr. MacQuigg at any time after January 1st of 1938 tell you that you should not supply—— A. Who?

Q. Mr. MacQuigg. A. MacQuigg?

Q. Yes. At any time after January 1st of 1938 did he ever tell you you shouldn't supply the raw material to the Vanadium Corporation of America

(Testimony of William John Priestley.)

but instead you should sell it in the form of ferro-vanadium and take their customers away?

A. MacQuigg never told me that. And he was not in a position to tell me or anyone else what they should do with raw materials, because he was in charge of metallurgical research at our research laboratory. [1668]

Q. Mr. Priestley, I show you a letter which has been marked 81 for identification: it is a letter from Mr. Henry J. Leir to Mr. M. D. Arronet, dated January 29, 1943. It is not in evidence in this case but only has been marked for identification.

A. (Witness examining.)

Q. Have you ever seen that letter before, Mr. Priestley? A. Never.

Q. Did you ever have a discussion with anybody inside any of the Union Carbide subsidiaries about the shipment of vanadium and Van-Ex from the United States to Canada? A. No.

Q. At any time?

A. No. Well, excuse me. Let me correct that. After I gave you a deposition——

Mr. Archer: Well, I object to this, your Honor.

The Witness: That goes back further——

Mr. Archer: This is after the filing of this lawsuit, isn't it, Mr. Priestley?

The Witness: Oh, yes. Yes.

Mr. Archer: Well, I object——

The Witness: I didn't know about it until after the filing of the lawsuit.

Q. (By Mr. Alioto): Didn't know what?

(Testimony of William John Priestley.)

A. Anything about ferro-vanadium or Van-Ex or anything [1669] being shipped to Canada.

Q. Well, do you know of any dispute between the Continental Ore Company and your company about shipments to Canada?

A. Not until after——

Mr. Archer: I object.

The Court: Sustained.

Q. (By Mr. Alioto): Now, then, finally, Mr. Priestley, do you recall there was an occasion when your company bid on some vanadium products that was sold to the United States Government about 1946? A. A vanadium product?

Q. Yes.

A. Do you mean ferro-vanadium?

Q. Either ferro-vanadium or vanadium oxide. Do you have any recollection about a bid to the U. S. Government where you had a discussion with Mr. Burwell about letting the Vanadium Corporation of America take the business instead?

A. No.

Q. You have no recollection of any such discussion? A. What?

Q. You have no recollection of any such discussion?

A. No, no. That would have been handled by our sales.

Q. Now, what was the period of time when you became the president of the Electro Metallurgical Company, when did that start? A. 1944.

Q. And you remained the president of the

(Testimony of William John Priestley.)

Electro Metallurgical Company from 1944 to what time, Mr. Priestley?

A. Let me think back a minute.

Q. Was it at least after 1949, sir?

A. Yes, it was after 1949, I think.

Q. Well, that is all we are concerned about. You were president——

A. I was vice-president until five years ago and I think it was about '50——

Q. Now, from the time that you became the president of the Electro Metallurgical Company—. Excuse me, prior to that time, you were the vice-president of the company?

A. One of the vice-presidents.

Q. Of the Electro Metallurgical Company?

A. Yes.

Q. And when did you first occupy that position?

A. I think I was made a vice-president of the Electro Metallurgical Company in 1932 and I was given the job of research and development.

Q. Now, I am going to direct this line of questioning to the period 1930 on. Let's forget anything that happened prior to that time.

Mr. Holland: You mean 1938 on?

A. 1938—that's back of 1938, isn't it? [1671]

Q. (By Mr. Alioto): Didn't you say you were made vice-president in 1932, or did you say '42?

A. I said '32.

Q. '32. That is what I thought. I don't want any questions, however—I am not relating my ques-

(Testimony of William John Priestley.)

tions to the period prior to '38, but only after that period of time.

After 1938 you were aware of the fact, were you not, that the Vanadium Corporation of America was selling more ferro-vanadium that Electro Metallurgical Company? A. I knew it very well.

Q. And you knew, as a matter of fact, that they sold twice as much as you sold?

A. No, I never knew any exact figure, but we could tell from the percentages of contracts that we got from our customers that they were selling more than we were.

Q. All right. A. And—go ahead.

Q. You knew at that time, didn't you, that your cost of production was lower than that of the Vanadium Corporation of America?

A. I did not. I never knew what their cost was.

Q. Well, for example, on the oxide that you sold to the Vanadium Corporation of America for 80 cents, didn't you make a profit on that?

A. Oh, that profit, I think, was credited to United States Vanadium Corporation, not Electro Metallurgical Company. [1672]

The Court: Do you know anything about that that he is talking about?

A. No, I am not sure where the profit went, but I told you I thought the profit went to the United States Vanadium Company, and the Electro Metallurgical Sales Company were only agents for the United States Vanadium Corporation.

Q. (By Mr. Alioto): Regardless of where it

(Testimony of William John Priestley.)

reposed, it reposed somewhere in the Union Carbide organization, didn't it? A. Yes, sure.

Q. This profit? A. Sure.

Q. And you knew that in 1938, didn't you, Mr. Priestley? A. Knew what?

Q. You knew you were making a profit on goods that you were selling to the Vanadium Corporation of America, the raw materials?

A. Well, I hoped they made a profit at 80 cents. I guess they did.

Q. If you knew that, you must have known from 1938 on that your cost of production was lower than your competitor who was selling more goods than you were?

A. Well, you are a better analyst than I would be.

Q. You did not know about it. Didn't you know in 1938 the Vanadium Corporation of America had had some trouble down in Peru with its mine?

A. If I did, I have forgotten about it.

Q. Did you ever inquire at any time from 1938 on as to why it was that the Vanadium Corporation of America was selling more ferro-vanadium than your company?

A. I knew why they were selling more.

Q. Why?

A. The United States Vanadium Company or their predecessor—I have forgotten the name—I think they had a predecessor before they took the name—they were the original producers of ferro-vanadium.

(Testimony of William John Priestley.)

Q. I take it you mean the Vanadium Corporation of America?

A. I beg your pardon. The Vanadium Corporation of America were the original producers of ferro-vanadium in this country. I think they started back somewhere ten or twelve years before we did, maybe more, and when we got into the production, or bought out the U. S. Vanadium Company in 1926, we had to go out and compete with the Vanadium Corporation of America and take business away from some of their old customers which they had had from the beginning of time vanadium was first put on the market. We had a lot of trouble and I knew about it, getting these customers to give us the business, because they were loyal to the Vanadium Corporation. They said they had been in the business before we were and they had a feeling we were just interlopers, breaking into a big company, much larger than Vanadium Corporation, and they had a feeling that the Vanadium Corporation was still entitled to their business.

Now, many of them would not give us contracts. We tried to get contracts from every potential ferro-vanadium user, every steel company we knew that used vanadium. We were after them and after them strong. I was after my men in charge of the development work to get in there and get more business, and if we got more we had to take it away from the Vanadium Corporation.

That is one reason why I knew they were making

(Testimony of William John Priestley.)

more than we were, but I never knew how much more.

Q. In 1938 you admittedly had better resources than they had, didn't you, better domestic resources?

A. We had good resources. I wouldn't say they were better. I don't know whether they were better than theirs or not.

Q. Your domestic resources were better than theirs to the extent that they had to buy from you, isn't that a fact, in 1938?

A. I don't know why they did, except they needed the ore.

Q. They needed the ore to make ferro-vanadium?

A. Yes. I grant you we were in a better position than they were, yes.

Q. If you were, why didn't you go after more of that market? [1675]

A. We did go after it more, but we couldn't sell the amount of vanadium we were already making because the market for vanadium still had dropped in consumption to a very small percentage of what it had formerly been.

The Court: At this time we will take a recess.

(Recess.)

Q. (By Mr. Alioto): Mr. Priestley, in answer to certain questions of the Court with respect to your investment in plants, I think you said that you had one plant that cost 15 to 20 million dollars, and there were six or seven of them.

(Testimony of William John Priestley.)

A. Six or seven plants.

Q. Six or seven plants.

A. They didn't all cost that much.

Q. I understand that, but you did not mean by that that all of that was a ferro-vanadium investment. You were talking about all your ferro-alloy business, weren't you? A. Oh, sure.

Q. Yes, including low-carbon ferro-chrome, for example?

A. The ferro-vanadium business was a very, very small part of that business, but the point I made when I told you about the magnitude of our plants and the investment we had in them, was what would happen to us if we had plants of that magnitude idle because we were selling oxides instead of ferro alloys.

Q. Yes, I understand that point very well.

A. I never tried to give you the idea that it was all ferro-vanadium. [1676]

Q. I know you didn't, sir, but I wanted the record to be clear on that because the Court asked the question.

In any event, as a matter of fact, your ferro-chrome business is larger than your ferro-vanadium business, isn't it? A. Yes, many times.

Q. Many times larger, and that is a very important business to you, your ferro-chrome business, is it not? A. Yes, sure.

Q. Who was your competitor in the ferro-chrome business?

A. Vanadium Corporation, Pittsburgh Metal-

(Testimony of William John Priestley.)

lurgy Company, Ohio Ferro Alloys Company, and let me see, there's another one.

Q. In the 1930's was it true that the Vanadium Corporation of America was your principal competitor?

Mr. Holland: I object to the question, "in the 30's."

Q. (By Mr. Alioto): All right, starting with 1938. Say as of 1938 the Vanadium Corporation of America was the other principal producer of ferro chrome, was it not?

A. No, there were several producing in 1938.

Q. Wasn't the Vanadium Corporation——

A. I think all those that I mentioned were producing in 1938.

Q. Wasn't the Vanadium Corporation of [1677] America the most substantial of them?

A. I don't know what their relative tonnages were. Pittsburgh Metallurgy was pretty large.

Q. Did anybody in your organization ever tell you that there was an arrangement on ferro vanadium with the Vanadium Corporation of America as a reciprocal part of an arrangement on ferro chrome?

A. No, and there never was during that period you are talking about.

Q. During that period?

A. No, certainly not.

Q. Was there at some other period?

A. No. I say that I know of at any time, and

(Testimony of William John Priestley.)

there certainly was not during the period I was president of the company.

Q. Do you know Mr. Sneath? A. Oh, yes.

Q. Mr. Sneath was kind of in charge of your foreign business, wasn't he, so far as vanadium was concerned?

A. Well, Mr. Sneath was interested in our foreign plants. I don't know about the vanadium business.

Q. Did he ever tell you that there was an arrangement on vanadium with the Vanadium Corporation of America predicated upon a reciprocal arrangement on ferro chrome, which was more important to you than the vanadium? [1678]

A. No, he never did.

Q. I think you stated in your testimony, sir, that the Union Carbide research organization never had anything to do with marketing, is that right?

A. That is right.

Q. Is that your best recollection of your testimony?

A. I know what duties they had.

Q. They never did have anything to do with marketing?

A. Not to my knowledge, not in my time.

Q. Didn't in fact the board of directors of the Union Carbide or Electro Metallurgical Company entrust that organization with the task of making

(Testimony of William John Priestley.)

an important study with respect to the marketing of vanadium? A. No.

Mr. Holland: Will you fix the date on that?

The Witness: No.

Mr. Alioto: At any time.

The Witness: No.

Mr. Holland: I think you are getting into——

The Witness: Yes, you are getting into before 1938, but they didn't, anyway.

The Court: He has answered the question.

Q. (By Mr. Alioto): You said even before 1938 they did not?

A. No. I know what you are driving at, this MacQuigg report, and he made a report that [1679] he was never expected to make or asked to make. MacQuigg was supposed to have come up with four or five different kinds of steel that was used, that would use more vanadium. That is what we had our research laboratory for, was to find new uses for ferro alloys, new kinds of steel that would use those alloys. That was the problem that was given to him. But he never came up with that at all. That is why, as I told you in my deposition, I wouldn't even read the report because he did not give us what we were looking for from the research laboratories.

The Court: When was that report made?

Mr. Alioto: The report was made in 1935 and discussed from there on in.

(Testimony of William John Priestley.)

The Court: The Court has ruled on that matter a number of times.

Mr. Alioto: Yes, if your Honor please, but after——

The Court: The Court has ruled on that matter and I don't want you to ignore the ruling of the Court any further on that matter.

Mr. Alioto: I am not ignoring the ruling. I think I ought to state that for the record because I think I have been deferential in that matter.

The Court: You offered that and it was declined.

Mr. Alioto: I offered, if your Honor please, Plaintiffs' Exhibit 47 for identification only in connection [1680] with the testimony that was given just before the recess that the research organization never had anything to do with marketing. I offer it to disprove that fact.

I take it the offer is rejected.

The Court: Yes, it is rejected.

Mr. Alioto: We have no further questions of the witness.

Mr. Archer: I have no further questions of Mr. Priestley, your Honor.

The Court: Step aside.

(Witness excused.)

Mr. Archer: My next witness, your Honor, I should like to call Mr. John Mitchell.

JOHN MITCHELL

called as witness by and on behalf of the defendants, and having been previously duly sworn, testified as follows:

Direct Examination

Q. (By Mr. Archer): Will you state your name and address for the record, Mr. Mitchell?

A. John Mitchell, 630 Willow Drive, Pittsburgh, Pa., 16.

Q. What is your present occupation, Mr. Mitchell?

A. I am the assistant manager of sales of the Constructional Alloy Steel Sales Department, U. S. Steel Corporation.

Q. What experience have you had in the field of alloy steels? [1681]

A. You mean my connection with companies?

Q. You can start with that.

A. Well, in 1917, I started with Frost Gear Forge Company, Jackson, Michigan, in the metallurgical department and the heat-treating department, until 1924.

In 1924 with Sizer Steel Corporation in Buffalo, in charge of metallurgical inspection.

In 1924 to about 1928, with the United Alloy Steel Corporation in Canton, Ohio, in the metallurgical department, and in the rolling divisions of rear axle shafts for automobiles.

Their successors, Central Alloy Steel Corporation, moved me into the metallurgical department again in metallurgical contact service work, and

(Testimony of John Mitchell.)

studying the constructional alloy steel applications and uses and the servicing of that product in the trade.

In 1936 I was hired by the United States Steel Corporation to go to Chicago and set up their metallurgical bureau for technical trade service work.

In 1941 I was transferred to the main offices of Carnegie Illinois Steel Corporation, a part of U. S. Steel Corporation, as metallurgical engineer, constructional alloy steels.

In 1946 I changed to my present position and have [1682] concentrated on the study of the history, application, development and the sale of the product and particularly distribution and analytical work.

Q. Are you or have you ever been employed by any of the defendants in this lawsuit?

A. No, sir.

Q. Are you a member of any technical committees?

A. I belong to the American Iron and Steel Institute and the American Society for Metals.

Q. Have you published any papers in the field of alloy steels?

A. In 1941 through 1945 I published about five different papers during the war on the subject of transient alloy steels, conservation of elements used in constructional alloy steels, the introduction of the national emergency steels, for which I received the Gary Medal of the Institute for the year; papers on harden-ability of the new steels so the

(Testimony of John Mitchell.)

consuming trade would have some comparison with the steels they used before.

In 1950 I published a paper on "Fifty Years of Progress in Constructional Alloy Steels."

Another one in 1952 that dealt with the conservation of alloying elements in steels for N.P.A., the National Production Authority, under the minerals and metals advisory board of the National Academy of Scientists for the Defense Department in case of another war, a classified document. [1683]

Q. Have you had any formal education as an engineer? A. No, sir.

Q. Have you made a study of the uses of vanadium and alloy steels?

A. Quite extensively.

Q. Was that study made for the purpose of this lawsuit? A. Oh, no.

Q. There has been some testimony in this case as to the use of vanadium in constructural alloy or engineering steels. What are constructional alloy or engineering steels?

A. I might explain constructional steels in this way: Normally, about ten percent of the total ingots made in the steel industry fall within the category of alloy steels, a general, broad term.

In that ten percent, about 60 percent of them are termed constructional alloy steels, and they are the steels that are used in the springs, the gears in your automobiles, aircraft crankshafts, connecting rods, oil well drill bits, and such things in similar industries.

(Testimony of John Mitchell.)

There is another group in that category called high strength low alloy steels, which would represent—the first, constructional alloy steel, would represent about 60 percent of the ten percent—high strength low alloy steels would represent about 13 percent.

High silicon sheet steel used for armatures, motors, [1684] and what-not, would be about 13 percent.

Stainless steels would represent about 13 percent.

And tool steels, the cutting tools, would represent about two percent of the ten percent.

Q. Your specialty, then, is constructional alloy steels, I take it?

A. In the 60 percent portion I have specified, yes.

Q. That 60 percent of ten percent?

A. Yes.

Q. I believe you have already described the principal applications of constructional alloy steels in the period 1938 to 1949.

A. Except for the end use applications in the war, such as armor-piercing shot, all the tank parts which are highly stressed members of the tank, armor plate, battleship armor plate, or tank armor plate, small 20—20 millimeter armor-piercing shot, and such similar applications that might be used in highly stressed members, oh, for actual destruction, other than high explosive shells.

Q. What are the reasons for using vanadium in making constructional alloy steels?

(Testimony of John Mitchell.)

A. This is confined to the 1938-1949?

Q. Confined to the period 1938-1949?

A. The principal reasons for using vanadium in special applications, one, was to control grain size. [1685] Small additions of vanadium to certain types of steel will influence and control its grain size. And I don't know whether this might be clear.

Q. Will you please explain what you mean by grain size?

A. I will think of a comparison that is simple.

When you harden an ingot and fracture a piece of steel and look at it visually, it denotes toughness when it is a slate color and has a velvety texture, and it is called crystalline and brittle when it has silvery crystals showing.

Now, the silvery crystals would represent the coarse grain steel, and the velvety side would represent the fine grain steel.

Or, to make a better comparison, if you had a glassful of white beans, white navy beans, and you had a glassful of granulated sugar, and you looked at the two microscopically, under the microscope, one would be the size of the navy beans, and the other one would be about the size of the granulated sugar as you see it to the naked eye. And that characteristic imparts a quality to steel that, in special cases is used. But that same condition can be produced with aluminum.

Q. Was vanadium used for any other purpose in constructional alloy steel other than for grain size control during this period?

(Testimony of John Mitchell.)

A. There were some applications that were permitted for use during the war that were uncalled for, but they were used nevertheless. [1686] There were certain applications in piston pin and aircraft engines during the war, there were certain applications that went into steels that were made for certain applications in Europe, to the Allies, that contained some vanadium, and the War Production Board, rather than to fight with those people over there, permitted its use to a certain extent. But by the time the war started there was very little vanadium used in constructional alloy steels, because it wasn't needed, and it served no useful purpose as compared with other elements which were available.

Q. From a technical standpoint, then, during this period, was vanadium used only to control grain size in constructional alloy steels?

A. No; it was used by composition in a few applications, as I mentioned. But the purpose for its use was not necessary.

Q. I see. What is meant by the term "grade mix"?

A. Well, in the constructional alloy steels there are certain basic compositions, and we will describe just a few to get the idea across.

You would have straight nickel steels as a basic composition.

Nickel chromium steels as a basic composition.

Chrome vanadium steels as a basic composition.

Nickel molybdenum steels as a basic composition.

(Testimony of John Mitchell.)

And so on. You can name about 26 of those basic compositions. [1687]

Now, the grade mix would be what percentage of each of those basic grades was of the whole. For instance, in the 60 percent that we talk about, roughly five million tons of ingots, what percentage——

The Court: How is this material, Mr. Archer?

Mr. Archer: I intend to use this witness, your Honor, to establish the point of the price at which ferro-vanadium was sold, and particularly as to its reduction to $2.25.

Mr. Alioto: If that is an offer of proof we will object to it, your Honor please, as not being material or relevant to any issue in this case.

Mr. Archer: I believe Mr. Burwell testified on direct examination that in his opinion if the price of ferro-vanadium had been reduced to $2.25 it would have increased its use, and that is the point I am leading up to, your Honor.

The Court: Very well. Let's get that as soon as we can.

Mr. Archer: Thank you, your Honor.

Q. (By Mr. Archer): Well, what was the situation in regard to the use of vanadium in this class of constructional alloy steels during the period 1938 to 1949—that is, to what extent was it used in constructional alloy steels during this period? [1688]

A. Out of the grade mix it was probably one percent.

(Testimony of John Mitchell.)

Q. Now, if, during the period 1939 to 1949 the price of ferro-vanadium had been decreased from $2.70 range to a $2.25 range, would the use of vanadium in constructional alloy steels have increased?

Mr. Alioto: We will object, if your Honor please, on the ground the question is speculative.

The Court: Overruled. I think this witness is competent to testify.

A. In my opinion, from the background and knowledge of metallurgy, of the effect of elements, it would have to have been much lower than that to induce people to use it. However, I might say during the same period they couldn't have used it because of the government controls on it.

Q. (By Mr. Archer): Then during the period that the government controls were on——

A. During the time they were in the war they couldn't have used it if they wanted to.

Q. (By the Court): What period, now, does that cover? Would that be '41 to '45?

A. That would be '41 to '45. Beyond that period they could have used it, after '45, to '49, but there would be no economical reason for using it.

Q. (By Mr. Archer): To what price would Ferro-vanadium have had to be reduced to increase its use during this period?

A. Compared with what vanadium price?

Q. Well, to what price from the $2.70 price range which we have talked about? A. I see.

(Testimony of John Mitchell.)

Q. To what price would it have to be reduced in order to increase its use?

Mr. Alioto: That is objected to, if your Honor please, on the ground that it is a speculative question, and also it opens up studies made by the corporation themselves which your Honor has excluded.

Mr. Archer: Not during this period.

The Court: Overruled. This is an expert witness.

The Witness: May I have that question again?

Q. (By Mr. Archer): To what price would ferro-vanadium have had to have been reduced in order to increase its use during this period?

A. I will have to answer that two ways: If it were being used for grain size control, it would have had to be reduced to about 60 cents per pound of contained vanadium; if it was used as a part of the composition of a chrome-vanadium steel, it would have had to have been about 80 to 90 cents a pound to compete with steels of equal characteristics. [1690]

However, for example, a comparison between a chrome vanadium steel and a chrome molybdenum steel, the price would have to have been about a third or less, around 80 cents, to make it competitive in price. But it would not do what the chrome-molybdenum steels would do.

Q. Is vanadium oxide used in the manufacture of constructional alloy steels?

A. In the open hearth furnace I can't recall of

(Testimony of John Mitchell.)

a pound that would be used, nor for any good reason.

In the electric furnace, the tool steel manufacture, not in constructional alloy steels, a small part of oxide is used. Because of the conditions of the slag they can reduce the oxide and get the benefits of the vanadium.

In the open hearth furnace, which produces the large volume of alloy steels, it would have no useful purpose whatever.

Q. And what kind of furnace is used for the manufacture of the constructional alloy steels?

A. They are mostly open hearth. There are some made in the electric furnace, but very few vanadium steels made in the electric furnace.

Mr. Archer: I have no further questions of Mr. Mitchell.

Cross-Examination

Q. (By Mr. Alioto): To what extent have any of the American companies used [1691] the oxides directly, not only in the vanadium field, but in the molybdenum field?

A. The field in which I specialize, I know of none,——

Q. Well,——

A. ——in the constructional steel alloy field.

Q. What about other steel fields that you have mentioned?

A. I can't speak for the tool steel people, or—I can speak for the constructional alloy steel por-

(Testimony of John Mitchell.)

tion of it, but no steel producer would attempt to, for this reason——

Q. How about the high speed tool steel category?

A. That's in the tool steel category.

Q. Do you know the extent to which oxides in various of these alloys have been used?

A. Well, if they were making a two or three percent vanadium steel, a small portion of that vanadium could be added as oxide.

Mr. Alioto: We have no further questions of this witness, except——

Q. (By Mr. Alioto): If the price of the United States Vanadium Corporation had been less than the price charged by the Vanadium Corporation of America, would your company buy the higher priced vanadium or the lower priced vanadium?

A. In the manufacture of steel, the most economical thing to do, to make constructional alloy steels, would be to use [1692] ferro-vanadium. And for another reason——

Q. My question is: At lower prices would you buy up the vanadium, at the lower prices, or the ferro-vanadium at the lower prices, or the ferro-vanadium at the higher price?

A. No, you wouldn't, because you would have to use so much more of the oxide in the open hearth to recover the same amount of vanadium.

Q. I don't think I am making my question clear.

If the United States Vanadium Corporation offered you ferro-vanadium at 10, 15 or 20 cents a

(Testimony of John Mitchell.)

pound below what you had been paying for it to the Vanadium Corporation of America, from which producer would you buy?

A. Well, in the type of business I am in, they wouldn't buy the oxide.

Q. I am not talking about oxide, sir; I am talking about ferro-vanadium.

A. Ferro-vanadium?

Q. Ferro-vanadium being sold by both parties, but one sells it at a lower price.

A. Well, I would buy the cheaper, of course.

Mr. Alioto: Surely. Thank you.

We have no further questions.

(Witness excused.)

Mr. Archer: Your Honor, as our next witness I call John Hill. [1693]

JOHN W. HILL

called as a witness on behalf of the defendants, being first duly sworn, testified as follows:

Q. (By the Clerk): Will you give us your full name? Give your full name to the Court and to the jury, and your occupation, and your address.

A. My name is John W. Hill; address is 1501 White Avenue, Grand Junction, Colorado. I am a mining engineer. I graduated Washington State College. Registered professional engineer in the State of Colorado. I belong to the several societies and institutes—American Institute of Mining and

(Testimony of John W. Hill.)

Metallurgical Engineers, Grand Junction Geological Society, and Colorado Mining Association.

Direct Examination

Q. (By Mr. Archer): During the period 1938 to 1939, Mr. Hill, were you employed—withdraw that question.

Who is your present employer?

A. At the present time I am managing partner of Worcester Mines.

Q. Is that a mine in Colorado?

A. Worcester Mines consists of a partnership of professional men in Grand Junction, Colorado, and we are operating a uranium mine near Uravan, Colorado.

Q. During any part of the period, or during the period [1694] 1939 to 1949, were you employed by the United States Vanadium Company?

A. From 1938 to the spring of 1942 I was an employee of the United States Vanadium Company, and in '42 to '44 I was an employee of the United States Vanadium Company, agency for Metals Reserve Company, and in that ensuing time I spent one year — approximately one year — with Union Mines, which was another government agency, and approximately another year with Dr. Vanderbilt and Dr. Parker of Denver, Colorado, assisting in the evaluation of the Ute Indian lands that were being evaluated by them for the Ute Indians. I was on leave at that time, this year with Dr. Parker

(Testimony of John W. Hill.)

and Dr. Vanderbilt, from the United States Vanadium Company.

Q. Prior to the time you worked for United States Vanadium Company, as agent for Metals Reserve Company, were you engaged in the purchasing of ore for United States Vanadium Company?

A. I went to work for United States Vanadium Company prior to 1938 as a junior engineer.

In '39—this '42 period when I went to work for Metals Reserve Company, the agency, I was assistant mine superintendent, and in that capacity did buy vanadium ores.

Q. (By the Court): You were acting then for an agency of the government at that time? [1695]

A. No, not prior to June of '42. I was an employee of the United States Vanadium Company.

Q. When did your employment start with the government?

A. As I recall, in June of 1942.

Q. How long did it continue?

A. Until February of 1944, or March of 1944.

Q. (By Mr. Archer): Well, then, part of that period, I believe you said, you worked for Union Mines. A. Yes.

Q. Do you recall what period of time you worked for Union Mines?

A. As I recall, I left the agency, the Metals Reserve agency, in the spring of 1944, and worked for Union Mines approximately a year.

Q. Union Mines was the company that had a

(Testimony of John W. Hill.)

contract with the Manhattan Project, is that correct A. That is correct.

Q. During the period of time that you were employed by the United States Vanadium Company, during the period 1938 to 1949, were you aware of any agreement by the United States Vanadium Company on the one hand, and the Vanadium Corporation of America on the other, as to the prices to be paid for ore?

A. You mean that they might have agreed on prices?

Q. Yes. [1696]

A. No, there wash no agreement that I know of.

Q. Mr. Burwell has testified that you may have been present at a meeting in June, 1942, at Dove Creek, among himself, Mr. Kett, and Mr. Bransome. Were you present at such a meeting?

A. No.

Q. Were you acquainted with the Morrison-Ackermann mill at Loma?

A. Yes, I knew where the mill was located, and I had been at the mill. I mean I had visited the mill.

Q. What was the occasion for your visiting the mill?

A. This was in June or July of that period, 1942, when we were working with—or working for the Metals Reserve Company, the agency in the procurement of ore, and I was approached by an attorney in Grand Junction as to whether or not Metals Reserve would be——

(Testimony of John W. Hill.)

Mr. Alioto: We object to that, if your Honor please, as to any conversation with some attorney in Grand Junction.

The Court: Don't tell what the conversation was.

The Witness: That isn't it.

A. (Continuing) The attorney approached me as to whether or not we would purchase ore that was stockpiled at the Loma Mill——

Mr. Alioto: I will object to that. [1697]

Q. (By Mr. Archer): The point is, you can't tell what this attorney told you. But I take it you were approached by an attorney in Grand Junction.

A. There was some stockpiled vanadium ore at the Loma Mill that was offered for sale.

Q. What did the attorney in Grand Junction have to do with the Loma Mill?

A. He was liquidating the assets of the mill.

Q. Was the mill operating at that time?

A. No.

Q. Were you working as agent for Metals Reserve at that time? A. Yes.

Q. What did you do then in regard to the Loma Mill?

A. We bought the ore that was stockpiled at the Loma Mill, and also examined the tailings from the mill with the possible purpose of buying the tailings for the recovery of uranium.

However, the tailings were not suitable for the recovery of vanadium, and we did not buy the tailings.

(Testimony of John W. Hill.)

Q. Did you examine the equipment in the Loma Mill?

A. I went through the mill, yes.

Q. In your opinion as an engineer was the Loma Mill an economical operation for processing vanadium oxide? [1698] A. It was not.

Mr. Alioto: That is objected to, if your Honor please, on the ground it is a speculative question. That question was not allowed at the time we asked it.

The Court: Overruled. Exception.

Q. (By Mr. Archer): What was your answer, Mr. Hill?

A. My answer was that it was not an economical operation.

Q. Why not?

A. The small plant used equipment, furnaces that had been tried in other locations I am familiar with, and they were not successful, they could not be operated successfully.

They were also trying to treat ores there that were highly refractory, and they couldn't recover a sufficient amount of vanadium.

Q. Where else had you observed the kind of process that they had at the Morrison-Ackermann mill?

A. There was a similar plant in Disappointment Valley near a small community called Cedar, or Slick Rock, actually. They are both in the same area. And this was an operation known as The Vanadium Company. They had a similar type of

(Testimony of John W. Hill.)

roaster at that plant. In fact, the roaster equipment was designed by a fellow named Frank Nisley. And this plant was operated there. And I observed that along with other engineers of the United States Vanadium Company. And that was not a successful operation. [1699]

Q. Mr. Burwell has testified that after the Loma Mill, which was operated by Morrison and Ackermann, commenced operating, that he started an ore-buying station in the area at Thompson's, Utah, at the Yellow Cap area. When was the ore-buying station at Tompson's, Utah, established?

A. Thompson's, Utah, as I recall, was the location of the first, or one of the first ore-buying stations set up by the Metals Reserve Company, the agency for the procurement of ores for the government, and I am sure it was after June, 1942—it must have been within that, that June, July or August period of 1942.

Q. Was the Loma Mill operating at that time?

A. No.

Q. Will you generally describe your activities while working for United States Vanadium as agent for Metals Reserve Company?

A. My title was supervising engineer, and I was—I was trying to think of the word—I was given the job by Mr. Burwell to set up an office in Grand Junction, Colorado, and to establish an organization to buy vanadium ores for the agency, and we would just buy all we could.

Q. Who was your superior in this position?

(Testimony of John W. Hill.)

A. Mr. Burwell was, but I didn't see him more than two or three times in the two years that I was there. We had a free hand. [1700]

Q. To whom did you report, then, in your operations for Metals Reserve?

A. Well, I reported to Mr. Burwell, but principally to Donald Emigh.

Q. How do you spell that last name?

A. E-m-i-g-h.

Q. Where was he located?

A. He was in the New York office of the United States Vanadium Company.

Q. Did you know a Mr. Whitaker?

A. Mr. Orville Whitaker is a prominent mining engineer in Denver, Colorado.

Q. Did he have any connection with the Metals Reserve Company?

A. Mr. Whitaker was an adviser, as I remember, for the Metals Reserve Company, and he also has a similar position with the Atomic Energy Commission at the present time.

Q. Did he work for the United States Vanadium Company? A. No, no.

Q. Were your activities working as agent for Metals Reserve Company authorized by the government officials?

Mr. Alioto: That is objected to, if your Honor please. That is a conclusion, as to whether or not all of his activities were authorized. Everything he did for a period of two years? That is a conclusion. [1701]

(Testimony of John W. Hill.)

The Court: Overruled.

You may answer, if you know.

A. We were operating under a contract that was written between the United States Vanadium Company and the Metals Reserve Company that sets forth in very considerable detail just how we would carry on this work for the government, and the maximum price which we could pay for vanadium ores that we were buying for the government.

Q. (By the Court): During this time were you devoting your entire time to that work?

A. Yes.

Q. (By Mr. Archer): Mr. Nisley has testified that it was his understanding that United States Vanadium was buying ore for the account of Metals Reserve, and the government was, as he said, picking up the tab, or paying a subsidy of ten cents per pound.

A. Is that the question?

Q. No. The question is, who paid for the ore that was purchased by the United States Vanadium as agent for the Metals Reserve Company?

A. The Metals Reserve Company, the government agency.

Q. Did it pay the whole price?

A. It paid the whole price, plus five cents a ton-mile transportation. [1702]

Q. Was any subsidy paid to the United States Vanadium for buying ore?

A. No, not as a subsidy. The United States Va-

(Testimony of John W. Hill.)

nadium did receive a very nominal fee for this work.

Q. My question is, was the United States Vanadium paying a subsidy for ore that it used, itself? A. No, not that I know of.

Q. Maybe that wasn't my question, but that is what I meant. I am sorry.

Mr. Nisley has testified that in October of 1942 he had a conversation with you and Mr. Burwell in regard to the negotiations for his toll agreement, and at that time you got angry with Mr. Nisley and told him that your salary was paid by United States Vanadium Corporation, not by the Metals Reserve Company.

Did you get angry with Mr. Nisley at this time?

A. I don't recall that I did. I do recall that we had a meeting.

Q. Did you ever tell him that your salary was paid by the United States Vanadium Corporation, and not by the Metals Reserve Company?

A. I wouldn't say that, because I was definitely being paid by the Metals Reserve Company.

Q. How was that done? [1703]

A. Paid by check. All of these, as I recall—all the personnel on the agency payroll working out of our office were paid from the office in Grand Junction. We had a revolving fund established for the purpose of buying ore and paying personnel.

Q. Who gave you this revolving fund?

A. That came from some Federal Reserve Bank in Kansas City, as I remember.

(Testimony of John W. Hill.)

Q. (By the Court): It came from the government?

A. It was government money, yes.

Mr. Archer: I am about to go to another subject, if your Honor wishes to adjourn.

The Court: I think we might just as well.

We will recess until 9:30 tomorrow.

(Whereupon an adjournment was taken until Wednesday, June 18, 1958, at 9:30 o'clock a.m.)

Wednesday, June 18, 1958—9:30 O'Clock A.M.

JOHN W. HILL

a witness on behalf of the defendants, on the stand at the time of adjournment, having been previously duly sworn, resumed the stand and testified further as follows:

Direct Examination—(Resumed)

Q. (By Mr. Archer): Mr. Hill, in reading the transcript of yesterday's testimony I noted on page 1699 that I asked a question:

"Where else had you observed the kind of process that they had at the Morrison-Ackermann mill?

"A. There was a similar plant in Disappointment Valley near a small community called Cedar, or Slick Rock, actually. They are both in the same area. And this was an operation known as the Vanadium Company."

A. The Mesa Vanadium Company.

Q. That is M-e-s-a? A. Yes.

(Testimony of John W. Hill.)

Q. When we adjourned yesterday I was asking you about a conversation with Mr. Nisley at or about the time that the toll agreement with the Metals Reserve Company was under discussion. Mr. Nisley testified further that in the following year, after the first month of its operations under the [1706] toll agreement he had a conversation with you in which you told him you were going to have to shut his plant down because he didn't have a 70 percent recovery, and that he replied that it was impossible to have a 70 percent recovery, because they had to fill the mill circuit. Do you recall such a discussion as that?

A. I was trying to place the date on that. Do you have the date on that?

Q. He commenced operations in about April, 1943.

A. Yes. And this would be——

Q. This would be after his first month, so it would be about in May, 1943.

A. Yes. We had several discussions about the operation of the plant. I was not concerned too much with the way the plant was run, because it was being operated under this toll agreement, and we didn't have, or I didn't have, direct responsibility as to just how they worked. We did have the responsibility, though, of seeing that the terms of the agency contract were carried out.

Q. (By the Court): What do you mean by a toll agreement?

A. The toll agreement in this case was, your

(Testimony of John W. Hill.)

Honor, that the agency, Metals Reserve, was accumulating ore in the vicinity of the plant, and Nisley & Wilson had made an agreement with the Metals Reserve Company that we were administering in [1707] which we furnished the Metals Reserve ore to the plant. They would process the ore, return the vanadium oxide to the agency, and they would pay for the work that they did in changing ore to concentrates.

Q. By "agency," do you mean a representative of the United States Government?

A. That is correct. And in doing that work they had originally agreed that they would return 70 percent of the oxide, V_2O_5, contained in the ore as concentrates after the milling process.

Q. They would return that to the government?

A. To the government, yes, sir.

Q. This conversation counsel asked you about, do you recall that conversation?

A. I don't say that I recall the specific conversation, but we did have conversations, because as a result of those conversations we recommended that the terms of the following extension of that agreement be changed from 70 percent to 65 percent recovery.

Q. (By Mr. Archer): What was the reason that you recommended that the toll agreement be amended to provide for 65 percent recovery instead of 70 percent recovery?

A. The plant was not able to make the 70 percent recovery.

(Testimony of John W. Hill.)

Q. In November, 1943, did you make a report on the [1708] operations of the Nisley & Wilson mill and the Durango plant of the Metals Reserve Company?

This has previously been identified as Defendants' Exhibit U-R. I ask you if that is the report that you made?

A. Yes. I prepared a report such as this each month. We call these progress reports.

Q. Does that report show the cost of operating or the cost of producing vanadium oxide at the Durango plant and at the Nisley & Wilson mill?

A. Yes, they do.

Q. What was the total cost of producing vanadium oxide at the Durango mill up to the date of that report?

A. Under the item of "Total Cost per Pound," V_2O_5 sacked, for the month of November the cost was $1.5839, and treated to date the cost was $1.523.

Q. Does that refer to the fused black oxide, the commercial product to which we referred here?

A. That is correct. That is the Durango plant. Did you ask about the Nisley & Wilson?

Q. How about Nisley & Wilson?

A. The processing costs for the Nisley & Wilson were furnished to us by Nilsey & Wilson and were incorporated in this report as Item 19, under the heading of "Nisley & Wilson Processing Cost, Total Cost per Pound V_2O_5 sacked," for the tons treated to date, was $1.652 per pound. [1709]

(Testimony of John W. Hill.)

Q. And that, again, refers to the fused black oxide? A. That is correct.

Q. (By the Court): What is the amount?

A. $1.65—well, $1.652.

Q. $1.65? A. $1.65, and 2-plus.

Q. All these matters, now, that you had with Nisley & Wilson you had as an agent of the United States Government? A. Yes, sir.

Q. (By Mr. Archer): Prior to undertaking your work for the Metals Reserve Company, the agency of the United States Government, were you familiar with the mining of the Calamity and the Outlaw claims near Gateway, Colorado, by United States Vanadium Company in the years 1940 to 1941?

A. Yes. I was the assistant mining superintendent, particularly in the latter part of 1940 and 1941, and I worked under a fellow named Joe Weston.

Q. Were those mines mined according to sound engineering practice?

A. Yes, it was under the terms—there was a lease agreement involved in this operation, and it was carried out. The terms of the lease were carried out, and we always mined in accordance with the lease. [1710]

Q. Was the Gateway mill operating at the time you did this mining?

A. The Gateway mill—there were actually two operations at the Gateway mill. One was an operation that was under the group known as Gateway

(Testimony of John W. Hill.)

Alloys, Brown and Bowen, and a fellow by the name of Harry Brown did the work, and that mill I do not believe was operating at the time. They were bankrupt at the time. And I think the Nisley & Wilson plant was not in operation at that time. I am not sure.

Q. After you finished mining the Calamity and the Outlaw claims near Gateway was there any ore remaining in those claims?

A. The Gateway area — I mean, the Calamity area is one of the best mineralized areas in the northern part of the Plateau in the carnotite type of ores, and they had just been scratched. This area had actually been mined during the period from 1916 to 1922, and then later on they started mining again in this new vanadium period that we are talking about. Now, they have since, subsequently, been mined, and they are still being mined, this same area.

Q. Was ore from those same claims used by the Metals Reserve Company for the operation of the Nisley & Wilson mill?

A. That is right. That is where they got the ore.

Q. Do you recall when your first meeting with Mr. Nisley was in regard to his operating under a toll agreement for the [1711] Metals Reserve Company?

A. That was, as I recall, in 1942.

Q. I show you a letter dated October 22, 1942, from yourself to Mr. Ennis Cole, and ask you whether you can identify that letter?

(Testimony of John W. Hill.)

A. That is my signature. Yes, I know the letter.

Mr. Archer: I offer this as defendants' exhibit next in order.

Q. (By the Court): Who is Ennis Cole?

A. Ennis Cole was a miner—or, rather, a mining contractor who had been mining in the Calamity area for Gateway Alloys, the people that had the first plant at Gateway, and he had mined ore for the Gateway Alloys plant. Now, that is not the Nisley & Wilson plant. The Gateway Alloys plant, which was prior, but in exactly the same—well, the same buildings as the Nisley & Wilson plant—he mined ore for them, and he was familiar with all the claims and mines on Calamity Mesa.

Mr. Alioto: May I just ask one question on voir dire?

Q. (By Mr. Alioto): Mr. Ennis Cole was not connected with the Nisley & Wilson partnership, was he?

A. I don't believe he was. [1712]

Q. And was this letter ever sent to anybody in Nisley & Wilson?

A. Well, I don't believe the letter was, but I know that everyone was familiar with this whole thing.

Mr. Alioto: We do not think a letter to a third party is admissible, if your Honor please, but if counsel wants to put it in we have no objection.

Q. (By Mr. Archer): Who was Sylvan Smith, Attorney, Grand Junction, Colorado? Do you know whom he represented?

(Testimony of John W. Hill.)

A. I believe he represented the Gateway Alloys group.

Mr. Archer: The only purpose, your Honor, of this, is to show the date that the United States Vanadium Corporation, as agent for Metals Reserve, commenced getting ore from the Nisley & Wilson mill.

The Court: I question whether or not the letter would be competent, over objection.

Mr. Alioto: We are not objecting, Judge.

Mr. Archer: I will withdraw it.

The Court: He might use it to refresh his memory as to date.

Mr. Alioto: Does the Court understand that I have no objection to its admissibility? He can put it in. I think he can do it more quickly this way.

Q. (By Mr. Archer): Does this refresh your recollection as to when you began to make arrangements to purchase ore for the Nisley & Wilson mill operations under the toll agreement?

A. Yes; it was actually prior to that date that we started the work at Gateway.

Q. And this date is October, 1942?

A. Yes. That was a very complex arrangement. The whole thing was in bankruptcy, and we had to go through a lot of work to get it straightened out.

Q. How much ore has been produced from the Calamity and Outlaw claims near Gateway about which we have been talking, since United States Vanadium Company quit mining them in 1941?

A. At least 200,000 tons.

(Testimony of John W. Hill.)

Q. I believe Mr. Nisley testified his mill was a 20-ton-a-day mill.

A. Actually, during the toll agreement period he did not operate at 20 tons. It was more like 12 tons a day.

Q. Was he restricted in his operations by the lack of availability of ore?

A. No, he was not. We had a stockpile of ore there available at all times. [1714]

Q. After the expiration of the toll agreement at the Nisley-Wilson mill were the Calamity and Outlaw claims near Gateway, which Metals Reserve had been operating, in better or in poorer condition for mining than they had been prior to the Metals Reserve?

A. They were in very much better condition. There was ore available. This Calamity area was actually not just one mine; this was an area that contained at least 10 mines, all of which were capable of producing more ore than the mill at Gateway could use out of one, and the mines were in good shape.

I say that because they were in continuous production, and we arranged with—we had the Bureau of Mines, through the Metals Reserve agency that we were with, to come up there and diamond drill a lot of those claims and a lot of ore was found.

Q. What is the purpose of diamond drilling?

A. It is an exploration, an exploration operation, in which ore is found through taking a core

(Testimony of John W. Hill.)

out of the earth and examining it, assaying it and determining the ore value.

As I said, this was a very well mineralized area and the diamond drilling was a procedure of finding the ore ahead of the underground mine working, so you know which way to direct your underground mine working, and the program was very successful, that is, they found a lot of ore. [1715]

Q. During the period from 1939 to 1949, were there mining claims available sufficient to support an economical vanadium oxide mill other than the claims owned by the United States Vanadium Company and Vanadium Corporation of America on the Colorado Plateau?

A. Thousands of claims.

The Court: What is your answer?

A. There were thousands of claims and thousands of acres of mineralized area available for location by anyone.

As a matter of fact, Mr. Burwell, who was a party here himself, and his group, located hundreds of claims in the Colorado Plateau, and many claims right in this area we're talking about, on Calamity Mesa, in 1948.

Q. (By Mr. Archer): This was after he left United States Vanadium Company? A. Yes.

Q. During the period 1939 to 1949 in your opinion how much money would have been required to acquire sufficient claims and to construct a mill to produce vanadium oxide on the Colorado Plateau?

A. Why, it would have taken about a million

(Testimony of John W. Hill.)

dollars to build a 100-ton plant and possibly $500,000 to get mines into production. It would be a problem whether you're trying to locate your own ground and find ore, or whether you would go out and buy mines—and they were available. [1716]

Q. Mr. Burwell testified that both United States Vanadium Company and United States Vanadium Company operating as agents for Metals Reserve, that is, the government agency, purchased certain ore from the North Continent Mines. Were you familiar with those purchases? A. Yes.

Q. What kind of ore was it that they sold?

A. The North Continent Mines is located at Slick Rock, San Miguel County, Colorado, and they again were in an area that was very highly mineralized, and they had a small plant—North Continent had a small plant at Slick Rock, and they treated approximately 20 tons of ore a day, and in treating—in running this plant, they tried to maintain their mill heads of about three percent V_2O_5

Q. What do you mean by the mill heads?

A. That is the grade of the material that goes into the mill. And in mining three per cent ore at the mines, they would get about four or five tons of material that contained less V_2O_5 than the mill heads, so they had about five tons of ore to sell or dispose of that they didn't use in their own plant, and this ore they sold V.C.A., and they sold also to U.S.V.

Mr. Archer: I have no further questions of Mr. Hill. [1717]

(Testimony of John W. Hill.)

Cross-Examination

Q. (By Mr. Alioto): Mr. Hill, you say it cost a million dollars to get a 100-ton plant or mill to produce vanadium oxide in the area?

A. I base that on my remembrance of the costs —or costs of the mill at Monticello. I think that was a million dollars.

Now, I know that the 200-ton plant at Rifle, Colorado, was only 400,000 because it was built on a prepared site with the foundations—the foundations were all in. And the plant at Durango, Colorado, of the Metals Reserve Company cost $100,000, but there, again, part of the equipment was already there.

Q. How much did it cost your company to buy that plant at Durango?

A. I don't know anything about that.

Q. About $75,000, wasn't it?

A. I don't know anything about it, sir.

Q. You have no information at all as to what it cost your company?

A. I was in ore procurement.

No, I really don't know.

Q. Well, you were right there, you worked about that area, didn't you?

The Court: He says he doesn't know. [1718]

Mr. Alioto: I would like to cross-examine on that, if your Honor please.

The Court: All right, go ahead.

Mr. Alioto: I find it a little difficult to believe

(Testimony of John W. Hill.)

that a man who is there on the spot and who professes to give an opinion on the million dollars, doesn't know what the market value of a plant was in 1944.

The Court: He has answered your question. Go ahead with your cross-examination.

Q. (By Mr. Alioto): Let me ask the question this way:

Do you know what the sales price of the Durango mill was?

A. I don't know.

Q. So when you gave your expert opinion that it would cost a million dollars to get a mill in that area, in that period of time, you didn't have knowledge of the actual market price of that plant?

Mr. Archer: I object. He didn't specify what it would cost to get it. He said he talked——

The Court: The question is argumentative. If you will ask him questions instead of making an argument——

The Witness: Why, I told you that I know what the plant cost to build because at that time I was —that was part of my duties, and I had—as that November report will show, I had some — those items were compiled in the progress report.

Q. (By Mr. Alioto): Well, did Mr. Burwell ever tell you that they got the Durango plant for less than $75,000? A. I don't know.

Q. You don't know whether he even told you that?

(Testimony of John W. Hill.)

A. I am sure—I don't know whether he told me or not. I would say he didn't tell me.

Q. All right.

A. As a matter of fact, I left the Metals Reserve Company in the spring of 1944, and I think the plant was disposed of at some time later than that.

Q. Okay. You testified that there was no price agreement that you knew of between the Vanadium Corporation of America and your company in connection with ore prices, I believe.

A. That is right.

Q. Is that right? A. Yes.

Q. Now, as a matter of fact, Mr. Hill, you didn't have anything to do with setting the price for your company, did you?

A. I was working with Mr. Weston, who was a mine superintendent.

Q. Yes. A. I was his assistant.

Q. Yes.

A. We discussed ore prices but actually I did not meet [1720] with Mr. Burwell and Mr. Weston to make the ore prices.

Q. That's right. As a matter of fact it was Mr. Burwell who was one of the chief officers of the company, or the chief agent of the company in connection with the making of prices?

A. Mr. Burwell—the price of ore was determined from the actual cost, the company cost, of mining ore. I mean, there wasn't—they wouldn't

(Testimony of John W. Hill.)

pay more for the ore from outsiders than it cost them to mine it themselves.

Q. And was your cost 21 cents for two per cent ore, 21 cents a pound?

A. At what time, sir?

Q. In 1939.

A. We had ore costs that were less than that. We had some that were more at the mines.

Q. Was 21 cents supposed to be some kind of an average?

A. The 21 cents—that would be $4.00 a ton—and we had mining costs that were $4.00 a ton.

Q. Approximately $4.00 a ton, that is your cost?

A. Mining cost, yes. So that established the price of ore at that time.

Q. Now, then, Mr. Van Fleet and Mr. Burwell were the men that actually had the power to set the price for your company, that is correct, is it not, Mr. Hill?

A. They were based on recommendations from Joe Weston [1721] and his associates, one of which I was.

Q. But in any event you didn't have——

A. No, not——

Q. (Continuing) ——the power to set the company's.

A. I did not.

Q. And you don't know whether Mr. Burwell and Mr. Van Fleet had a meeting with Mr. Bransome at the Union League Club in New York at

(Testimony of John W. Hill.)

which they discussed the matter of ore prices, do you? A. I wouldn't know.

Q. In other words, you were never informed of the fact that there was a meeting at the Union League Club by Mr. Burwell——

Mr. Holland: Where does this Union League Club come in? I don't remember any testimony.

A. I wasn't present.

Mr. Holland: I don't think it makes any difference, but there wasn't any testimony on it.

Q. (By Mr. Alioto): Now, then, in connection with the Metals Reserve Company pricing, you were shown a letter by counsel—he offered it and didn't put it into evidence—in which you set up a price of 30 cents per pound for two per cent ore. Then you stated: "This is subject to approval in Washington." Do you recall that situation, Mr. Hill?

A. Yes.

Q. Now, then, as a matter of actual mechanics, how did this work? [1722] Did Washington tell you to go out there and charge or to pay 30 cents per pound, or did you folks first make the recommendation as to the amount of money that should be paid and get the authorization of Washington to pay that much money?

A. We had in the agency agreement the authority to pay not more than 50 cents a pound.

Q. Yes?

A. We were obligated to get the ore as cheap as we could. We had the authorization to pay this price. This was a special arrangement, because we

(Testimony of John W. Hill.)

were trying to get ore for the Gateway plant, and the mines in this case at Calamity—there was the question of title and we had to work out a special arrangement. I think that (letter) also shows that in addition to the 30 cents we paid an 8 cents a pound that went to the trustee, the owners of those claims that were in litigation.

Q. Now then, Mr. Hill, would it be correct to say that up to 50 cents a pound, that you folks had the discretion of fixing the price of ore that you would pay to the miners, is that correct?

A. In the Metals Reserve agency.

Q. I am talking about the Metals Reserve agency. Now, only that. A. Yes. [1723]

Q. That is correct, is it not? A. Yes.

Q. And that price was not fixed, except for the 50 cents ceiling, was not fixed by any government representative other than yourself or insofar as you were a government representative?

A. I was a government representative.

Q. And that's correct, is it not, that you folks fixed that price?

A. The Metals Reserve, yes, we—that's right.

Q. Well, now, you say "Metals Reserve." I am trying to get to people. Who were the people?

A. I did.

Q. You did, Mr. Hill. Thank you.

Now then, in connection with the fixing of that price, did you ever confer with Mr. Bransome of Vanadium Corporation of America?

(Testimony of John W. Hill.)

A. We bought ore from the Vanadium Corporation of America.

Q. Well, quite aside from buying ore, did you ever confer with Mr. Bransome as to how much money should be paid for ore?

A. I didn't actually do that. We had another man in this organization named Paige Edwards.

Q. Yes. And who is Paige Edwards?

A. Paige Edwards was working as a liaison man between the Metals Reserve advisor, Mr. Orville Whitaker of Denver, Colorado, and at my office, myself, and when the Vanadium Corporation offered [1724] ores for sale, Mr. Edwards investigated the matter of what price should be paid for those ores, and I would approve them along with Mr. Whitaker. I did not discuss ore prices with Mr. Bransome.

Q. Did you ever suggest that ore prices be discussed with Mr. Bransome? A. I may have.

Q. Was it done?

A. I am sure that Mr. Edwards did.

Q. And did you direct Mr. Edwards ever to go to Mr. Bransome and discuss with him the prices that should be paid for ore?

A. Oh, we were after all the ore we could get in Metals Reserve and they had ore available. I would say that I might have done that.

Q. Did you ever get Mr. Bransome's views as to what price would be charged or what price should be paid for ore?

A. Not from Mr. Bransome.

(Testimony of John W. Hill.)

Q. Did you get them from Mr. Bransome through Mr. Edwards?

A. I got them from Mr. Edwards.

Q. Mr. Edwards, he is a Vanadium Corporation of America employee?

A. At this time he is, yes, but he left the agency and went—I think he went in the Navy and then he went into the contracting business and then came back to V.C.A. [1725]

Q. I show you a letter of yours——

Well, first of all, let me show you a document, a handwritten document, dated 9-17-1943. (Handing witness.)

Would you be good enough to look at that, Mr. Hill, and then state whether or not that is your handwriting?

A. (Examining) That is my writing.

Mr. Alioto: We will offer this into evidence, if your Honor please, in connection with the cross-examination of this witness.

A. I would like to see that again or——

Mr. Alioto: Yes, sir.

The Witness: Or, Mr. Archer, will you tell me the date on that?

Mr. Archer: September 17, 1943.

The Witness: Yes, thank you.

Mr. Archer: No objection.

Mr. Alioto: Do you want to see the letter again?

The Witness, no, fine, thank you.

Mr. Alioto: The date is September 17, 1943. Do you have that in mind?

(Testimony of John W. Hill.)

The Witness: Yes, thank you.

(Handwritten letter, Hill to Edwards, dated September 17, 1943, received in evidence and marked Plaintiff's Exhibit No. 147.)

Q. (By Mr. Alioto): Now, this is addressed to [1726] "Dear Paige," in your handwriting. "Paige" I take it is Paige Edwards?

A. That's correct.

Q. Whom you have identified.

A. Paige Edwards was in charge of the laboratory and sampling works at Monticello, and the Vanadium Corporation was operating the plant at Monticello, Utah, for the Metals Reserve Company.

Q. Who was the man named Denny?

A. That is Mr. Biles.

Q. Denny Biles? A. Yes.

Q. He was the head man there so far as mining was concerned and the running of the plant, wasn't he? A. That's correct.

Mr. Alioto: This letter reads, in part:

"I have been trying to call Denny about the ore prices. No connection. I wonder if anything could be gained by meeting with Denny and Mr. Bransome about the ore prices. I will try and get the Chandler Chumway deal out to you tomorrow. Regards, John."

Q. Did you ever have this meeting with Mr. Bransome?

A. No, I didn't have the meeting with Mr. Bransome or Mr. Biles. That was Paige's job and he would be the one. [1727]

(Testimony of John W. Hill.)

Now, I would say he did have the meeting, but I didn't have the meeting.

Q. Well, you say you would "try to get in touch with Denny about ore prices."

A. We are talking about the purchase of ores from the Vanadium Corporation of America for the Metals Reserve Company.

Q. Mr. Bransome wasn't an agent of the Metals Reserve Company?

A. He was an officer of the Vanadium Corporation.

Q. Yes, but he was no agent of the Metals Reserve Company, was he? A. No.

Q. And neither was Denny, Mr. Biles?

A. Mr. Biles had ore available that he would sell to the agency. As a matter of fact, they did mine and sell ore to the agency.

Q. Was Mr. Bransome some kind of an advisor to your folks, to you and Mr. Edwards, during this period of time? A. Absolutely not.

Q. He didn't have anything to do with Metals Reserve, did he?

A. I don't know whether he did or not. He didn't have anything to do with my work.

Q. Did it ever come to your attention that he was intervening in your work in any way? [1728]

... I don't think—I don't know that he did.

Q. In connection with Wade and Curran, for example. A. I know Wade and Curran.

Q. Who were Wade and Curran?

A. They were mining ore—they were located at

(Testimony of John W. Hill.)

Farmington, New Mexico, and they were mining ore on the Navajo Reservation, ore purchased for the Metals Reserve Company.

Q. And did Mr. Bransome have anything to do with any relationship between Metals Reserve Company and Wade and Curran?

A. Not that I know of.

Q. You recall receiving a copy of this letter, which I am handing you, February 4, 1944 (handing witness)?

A. (Witness examining.) This is dated February the 4th, 1944. That was a letter written by Paige to me. [1729]

Q. And you received it, sir? A. Yes.

Q. And "Page," again, is Page Edwards?

A. That is correct.

Mr. Alioto: We will offer this in evidence, if your Honor please. I ask that it be marked as plaintiffs' exhibit next in order. Counsel already have examined it.

(The inter-company memo referred to was thereupon marked Plaintiffs' Exhibit No. 148 in evidence.)

Mr. Alioto: Under date of February 4, 1944. It is on the inter-company correspondence, to Mr. John W. Hill, Grand Junction, Colorado, from Page Edwards, marked "Personal" (reading):

"Dear John:

"M. L. Nielson was in today and said that he had not received a contract cancellation. He appeared to feel slighted in the matter. I told him

(Testimony of John W. Hill.)

his contract would apply to the notice on the bulletin board. However, it might be well to send him a formal cancellation as we have with the rest of the producers in the country.

"Wade and Curran were in today, not to see me, but to see Mr. Bransome and Denny. They were quite put out regarding the whole matter and said they did not feel that their contract was subject to cancellation. [1730] Mr. Bransome is familiar with our general form, and if their contract is on one of our OPA forms, Mr. Bransome felt that there was no question that the contract is automatically cancelled when we stop receiving ore. Evidently their next move is to see Dan Melinskie in Cortez.

"All of this to merely keep you posted as to your friends' activities."

Q. (By Mr. Alioto): Now, what is the reference there to "your friends' activities"? Who were "your friends," sir?

A. I think he was referring to Wade and Curran.

Q. Did Mr. Bransome, in February, 1944, occupy some position with Metals Reserve Company?

A. No.

Q. Did you deputize him to handle the Wade and Curran matter? A. No.

Q. As a matter of fact, there was a charge at or about the time that you were paying higher prices to V.C.A. than anybody else, wasn't there? Didn't that charge come to your attention?

(Testimony of John W. Hill.)

A. I don't remember that. My recollection is that Wade and Curran received the highest prices.

Q. Do you recall that there was a charge that you paid V.C.A. higher prices?

A. By whom? I don't remember.

Q. Under the Metals Reserve contract, that in your discretion to pay up to 50 cents——

A. Right.

Q. The average price was 31 cents, wasn't it?

A. That was the base price when we started the program.

Q. 31 cents with two percent off?

A. In 1942.

Q. Do you recall that there was a charge made that V.C.A. was getting higher prices?

A. I don't recall any specific charge. There were so many ore prices there that I think we paid Wade and Curran more than we paid V.C.A., and Sitton, and North Continent, and those mines, were essentially in the same category, and the mines around Gateway were approaching that same price level.

Q. Who was it in your organization that actually fixed the price to be paid during the Metals Reserve period? I mean what person?

A. I had that authority.

Q. Did you consult with Mr. Burwell on it?

A. I didn't see Mr. Burwell very often. I don't think I did in a lot of these cases. Pardon me.

Q. Go ahead. I'm sorry.

A. I was merely going to say in the case of

(Testimony of John W. Hill.)

[1732] the Vanadium Corporation of America ores we cleared with Mr. Whitaker in Denver.

Q. Yes. And now Mr. Burwell, did you discuss it with him, ever, as to what the basic ore prices should be, or whether the basic price should be 31 cents or 49 cents for two percent ore?

A. When we set up the agency office in Grand Junction Mr. Burwell told me to go out and acquire all the ore that we could get. The base price at that time was 31 cents. And we proceeded to purchase the ore, and the prices gradually went up with the cost of everything else at the time.

Q. The simple point I am trying to get at is, did Mr. Burwell fix that base price of 31 cents as far as you were concerned? Isn't that a fact?

A. I can't say that—well, I suppose he did, but that was the base price being paid in the industry at the time that went in to Metals Reserve.

Q. When you say in the industry, that meant predominantly your company and V.C.A., isn't that the fact?

A. Well, they were the large producers at that time.

Q. That 31-cent price was not determined or fixed by you, was it, Mr. Hill? It was fixed by Mr. Burwell and Mr. Van Fleet?

A. I don't know that.

Q. Well, you were buying, weren't you, for the United States Vanadium Company?

A. I was told by Mr. Burwell that the base price was 31 cents.

(Testimony of John W. Hill.)

Q. All right.

A. I don't know whether he fixed the price or not.

Q. In any event, it was Mr. Burwell who told you what price to pay?

A. That is correct.

Q. And specifically, a 31-cent price?

A. That is correct.

Q. Do you know whether before telling you that he had a conference with Mr. Bransome in Dove Creek, Colorado, at which that price was discussed, the question of putting the price at 31 cents instead of 21 cents?

A. I don't know about that.

Q. Yesterday Mr. Priestley said that this sale of oxide by your company of 130,000 pounds at 80 cents to your competitor, the Vanadium Corporation of America, was—I think his language was—an isolated transaction.

A. I am not familiar with the sales, of course.

Q. Didn't you know that this amount of oxide was being sold to the Vanadium Corporation of America at 80 cents?

A. I wouldn't have any way of knowing at all.

Q. You did not know, either.

A. I would say that 80 cents would—you could [1734] make money at 80 cents at that time.

Q. How much money?

A. I don't know how much offhand, no.

Q. The cost was about 40 cents, wasn't it?

A. I would say it was more than 40 cents.

(Testimony of John W. Hill.)

Q. How much more than 40 cents?

A. Probably around 50 cents.

Q. So you figured you were making 30 cents a pound at that time?

A. In that particular case, in 1938, it would be well to know what ore was involved there.

Q. Don't you know? You were out there.

Q. (By the Court): Did you have anything to do with the transaction?

A. No, I had nothing to do with the sales.

Q. (By Mr. Alioto): Did you know what oxide was being sold to Vanadium Corporation of America by your company at 80 cents?

A. No. If I knew, it would be hearsay. I don't know.

Q. Did you know what your company was selling vanadium oxide for to everybody else at this same time? A. No, I do not.

Q. Wasn't it $1.10? A. I don't know.

Q. You don't know that. You know something about Maggie C., don't you? [1735]

A. I know where it is and who owns it.

Q. And besides where it is and who owns it, didn't you have anything to do with supervising the mining activities of the Maggie C.?

A. What date are we talking about, sir?

Q. From 1939 through 1942.

A. Yes; yes, the latter part of that period.

Q. I think it might be well, since you suggest the location—— A. I know where it is.

Q. Would you be good enough to point out for

(Testimony of John W. Hill.)

the members of the jury, please, Mr. Hill, where the Maggie C. claims of the Vanadium Corporation of America which you mined were located?

A. We are just talking about one claim.

Q. Let us talk about Maggie C.

A. Maggie C., and it is only one claim.

Q. Yes.

A. 300 by 1,500; not the standard-size claim.

Q. Yes. Will you be good enough to point out to the members of the jury where that is located? If you would tilt the map this way so the members of the jury sitting back here can see it, it would be helpful.

A. I will have to get my bifocals. [1736]

Q. May I assist you in holding that, Mr. Hill?

A. You have a map here that does not show the town of Uravan. There is Naturita, and this is the Uravan area.

Q. It is the Uravan area?

A. Uravan would be there, and the Maggie C. would be—well, about where this "A" is. It is south of Uravan.

Q. When you say about where this "A" is, you are talking about the "A" in Uravan designated as a mining district? A. Yes.

Q. On Plaintiffs' 26 for identification?

A. Yes. In other words, it is approximately ten miles south of Uravan.

Q. It was close to your Uravan plant, is that right? A. Yes.

Q. You were aware, were you not, in 1939, 1940,

(Testimony of John W. Hill.)

and 1941, that your company was mining on this Maggie C. claim? A. Yes.

Q. And you were also aware, were you not, that you also mined a claim called the Donald L., which was in the vicinity? A. Yes.

Q. What other claim did you mine at that time that belonged to the Vanadium Corporation of America, your competitor?

A. Those are the only ones, right there in the Uravan area, that I am familiar with. [1737]

Q. Are those the only ones you are familiar with that your company ever mined?

A. No.

Q. That is, under those circumstances, where the mine was owned by the Vanadium Corporation of America.

A. I think there was some mining over in Dry Valley.

Q. Yes. And that Dry Valley mine, as a matter of fact, was connected with this whole Maggie C. situation, wasn't it? A. That is correct.

Q. Let me show you a document.

I will ask that this be marked. It is called "Maggie C. 1939-1941."

(Whereupon the file of documents referred to was marked Plaintiffs' Exhibit No. 149 for identification.)

Q. (By Mr. Alioto): Yesterday I showed this document to Mr. Remmers, and we had a little trouble finding out whether the pounds were pounds of ore or pounds of oxide. I would like you to help

(Testimony of John W. Hill.)

us on that, Mr. Hill. You will notice in this Maggie C. file, first of all, there is the signature of A. H. Coleman. I take it you knew Mr. Coleman?

A. Yes, I did.

Q. And I take it you know his signature?

A. Well, I know Mr. Coleman. I am sure that is his signature. [1738]

Q. He was the superintendent of mining at the time?

A. I think he was superintendent of the Uravan plant at the time.

Q. The plant at Uravan? A. Yes.

Q. This document shows at the bottom of it:

"Shipped to October 1, 1941, 717,848 pounds."

Will you be good enough to tell us whether that is pounds of ore or pounds of oxide? We had a little difficulty on that.

A. This states—the letter of October 1, 1941:

"Mining and milling Maggie C. ores,——"

and you have tons, tons hauled, and the date. In other words, that is production from the mine from the 4th of September to the 30th, 96-plus dry tons. And then the analysis shows, in the first column is tons of ore, grade of ore, pounds of V_2O_5, the extraction, 75 percent. That would indicate that this ore was milled, and Mr. Coleman had to account for the recovery of the vanadium from the ore. This, then, would be pounds of vanadium that was extracted from ores prior to that time.

Q. Pounds of vanadium ore? A. V_2O_5.

Q. Vanadium oxide?

(Testimony of John W. Hill.)

A. Yes. And this would be the total amount that had been mined by U.S.V. from the Maggie C., and treated by U.S.V. from [1739] the Maggie C. and delivered to the V.C.A.

Q. Specifically, that total amount, which is 717,000 as of October 8, 1941, 717,848 pounds are pounds of vanadium oxide, isn't that correct, and not pounds of ore?

A. This is pounds of oxide.

Q. Vanadium oxide. Thank you.

We will offer this in evidence, if your Honor please. This is report of U.S.V. and V.C.A. on the amount of oxide that was delivered.

Mr. Holland: That makes a lot more records in evidence. That evidence is already in.

Mr. Alioto: I submit the evidence is not in, those reports showing how much they gave them month-by-month during the period of time.

Mr. Holland: I have no objection.

Mr. Alioto: If there is no objection we offer it, if your Honor please.

Mr. Holland: I will withdraw the objection.

The Witness: That was mined on a toll agreement basis, as I recall it.

The Court: It will be admitted.

(The file of documents formerly marked Plaintiffs' Exhibit No. 149 for identification was now received in evidence and so marked.)

[See Book of Exhibits.]

Q. (By Mr. Alioto): Now then, you specifically

(Testimony of John W. Hill.)

had something to do with this Maggie C. situation, didn't you?

A. Oh, yes. In this case you merely asked me to identify what was on the letter there.

Q. That is correct.

A. I don't know anything about the mechanics or the agreements, or anything else that might have been involved in this.

Q. I understand that. Did you have anything to do, I am asking, with this Maggie C. operation by your company on the V.C.A. claims?

A. Just the physical work of extracting the ore.

Q. And you directed that physical work, didn't you?

A. No, Mr. Weston directed that work.

Q. And you were an assistant to Mr. Weston?

A. That is correct.

Q. And you knew at the time you were directing it that you were mining this off of V.C.A. claims?

A. Yes, that is correct. I will say now why it was being mined.

Q. To turn over the oxide to V.C.A.

A. On a toll agreement basis.

Q. Yes. Now, you say a toll agreement basis, Mr. Hill. That implies that you took their ores, processed them, and took that product of vanadium oxide and turned it over to [1741] V.C.A., doesn't it? Isn't that what "toll" means?

A. Yes. Well, I would like to give my position on this thing.

Q. Yes, will you state it, sir?

(Testimony of John W. Hill.)

A. And that is, as the man in charge of the extraction of the ore, I don't really know what these—what the agreements were in this case. I know that the ore was being mined, was being processed, as this letter from Mr. Coleman would indicate, but I knew that that was going on.

Q. In that connection—you called it a toll agreement.

A. I don't say it was a toll agreement. I am identifying such an arrangement that might be called a toll agreement.

Q. Didn't the Vanadium Corporation of America kind of overdraw its account in connection with Maggie C.? A. I heard that they did.

Q. Who did you hear it from?

A. Again, that was in the mining department.

Q. You heard it within your own organization?

A. Yes.

Q. You called it a toll agreement, but that means if they overdrew their account, that you supplied them with oxide over and above oxide that you secured from the claim, doesn't it?

A. If I follow you correctly, we supplied more oxide than we mined.

Q. Yes. [1742]

A. In Maggie C. that might have been the case, but then, again, I was not familiar with this operation beyond the extent of just being, say, a miner.

Q. That means, necessarily, does it not, Mr. Hill, that you supplied them oxide from your own sources, isn't that correct?

(Testimony of John W. Hill.)

A. I know that there was some other oxide ore produced in Dry Valley.

Q. I am talking about the Maggie C. overdraft, as I will call it.

A. I really can't say that, because I don't know. I had nothing to do with the weights, the analyses, or putting those together.

Q. Tell me, who knows anything about Maggie C.?

Q. (By the Court): Do you know of your own knowledge about an overdraft?

A. Yes, I know that there was an overdraft, but I don't know anything about the—I was actually in the mining department.

Q. Yes, I understand.

Q. (By Mr. Alioto): Was this lady, "Maggie C.," introduced to anybody in that organization? Who knows about Maggie C.?

A. Everyone in the area knows about the Maggie C. claim.

Q. Mr. Priestley did not know about it. [1743]

A. He wouldn't know about it.

Q. Who would know about it?

A. Mr. Weston and Mr. Burwell.

Q. Mr. Burwell was the man who knew more about it than anyone else, wasn't he?

A. Well, yes; he was the manager at the time. He should know.

Q. In connection with this overdraft, it was Mr. Burwell who told you, wasn't it, that they had

(Testimony of John W. Hill.)

Q. And I believe you testified that M.R.C. bought considerable ore from the Vanadium Corporation of America, is that correct?

A. That is correct.

Q. And that those sales were handled by Paige Edwards? A. That is correct.

Q. Now, as a matter of fact, all of those purchases from V.C.A. were passed on by Mr. Whitaker in Denver, were they not? A. Yes.

Q. And was he——

A. Mr. Whitaker actually made trips out into this area to examine the mines.

Q. Mr. Alioto introduced in evidence a letter you wrote [1754] Paige Edwards on September 17, 1943, in which you said:

"I have been trying to call Denny about the ore prices. No connections."

Now, what ore prices were you talking about there?

A. Talking about prices for ore that Metals Reserve Company——

Q. Would pay who?

A. Would pay the Vanadium Corporation of America.

Q. This is ore that they bought from Vanadium Corporation of America, is that correct, or that they were going to buy?

A. Either were going to buy—. Were going to buy.

Q. Did this have anything whatever to do with

(Testimony of John W. Hill.)

the prices paid miners for ores by either Vanadium Corporation or U. S. Vanadium at the time?

A. Absolutely not.

Q. And when you say "I wonder if anything can be gained by meeting with Denny and Mr. Bransome about the ore prices," you were talking, were you not, about the prices that M.R.C. would pay V.C.A. for ore from its own mines—some of its own mines, is that correct? A. That is correct.

Q. Which prices were, in the final analysis, passed on by Mr. Whitaker in Denver.

A. That is correct. We bought ore from V.C.A.

Q. Now, when this other letter that he introduced about [1755] "Wade and Curran were in today, but not to see me, but to see Mr. Bransome and Denny—" now, actually Vanadium Corporation of America was operating the Monticello plant for Metals Reserve, were they not?

A. That is correct.

Q. And "Wade and Curran" that he refers to here had a mine that was tributary—that is, its ore was being purchased by M.R.C. for the Monticello plant, is that correct?

A. I think most of it went to the Durango, actually.

Q. But some of it went to the Monticello plant?

A. Yes. Both of them were agency plants.

Q. Mr. Alioto was trying to make the point that——

Mr. Alioto: I will object to that—as to what I was trying to make, as argumentative.

(Testimony of John W. Hill.)

overdrawn their account, so to speak, from Maggie C.?

A. I can't say that he told me. I don't know. I knew because I had heard in the course of milling around the office and so forth that there was more.

Q. My question was, necessarily the overdraft of oxide that they took from you came from your own production, didn't it?

A. I believe that is right.

Q. And you sold it, or transferred it, to the Vanadium Corporation of America at 65 cents, didn't you? A. I don't know.

Q. What was the toll arrangement under Maggie C.? You do not know that it was 65 cents?

A. I don't know what the price was. No, I don't know the price. They mined the ore. The company had excess mill capacity at that time, because we were not selling vanadium. [1744] I know that. We were working our mines half-time — the U.S.V. mines half-time.

Q. In 1941? A. In 1939.

Q. The Maggie C. agreement went right through to 1941.

A. But this was particularly the 1941—or 1939 period, as I remember it, and the ore — V.C.A. didn't have a plant at that time at Naturita, and this ore was mined under a contract or toll agreement for V.C.A.

Q. Don't you know now, Mr. Hill, that that toll agreement was 65 cents for 1939 and 75 cents for 1940? A. I don't know for a fact.

(Testimony of John W. Hill.)

Q. And this is the first time you heard those figures mentioned, 65 cents and 75 cents?

A. I would say that that is right.

Q. Now then, there came a time when this overdraft of oxide by the Vanadium Corporation of America, the overdraft from the Maggie C. arrangement, was worked out under a deal where you mined—U.S.V. mined—another claim of the Vanadium Corporation of America, was it not?

A. Yes, in Dry Valley.

Q. Would you be good enough to show the location of the Dry Valley claims of V.C.A., and if you will be good enough to tilt that map so the members of the jury sitting back here can see it—— [1745]

A. Well, it was north of Monticello about 17 miles, say in this area, here.

Q. That would be roughly in the vicinity of the Metals Reserve plant, or the Defense Corporation plant that was operated by V.C.A.?

A. When was this ore mined in Dry Valley, may I ask you, please?

Q. Let me show you your own documents on that so there will be no speculation about it.

A. This is not my signature, of course.

Q. How is that?

A. This is not any of my correspondence.

Q. Oh. You know Mr. Haldane, though?

A. Yes.

Q. He was a very prominent man in the organization, was he not?

A. Yes; he was superintendent.

(Testimony of John W. Hill.)

Q. You will take his signature as to dates, won't you?

A. Well, the date is October 9, 1941. Just a second.

Q. If you will flip the pages I think you will see the extent. You will notice the final statement on Dry Valley. Will you be good enough to fix that date for us, sir?

A. This letter is dated April 7, 1942.

Q. O.K. So far as the general location is concerned—that is, the location in the area where Vanadium Corporation [1746] of America operated the Monticello.

A. There was no plant there at that time.

Q. I understand that. A. Yes.

Q. But that is the area in which they operated the plant? A. Later on.

Q. Yes. A. Yes.

Q. Now then, did you supervise or assist in the mining of this Vanadium Corporation of America claim?

A. Do you know which one it was?

Q. The Dry Valley claims.

A. There are lots of claims. It is immaterial. I visited the Dry Valley claims, yes, with Mr. Weston.

Q. You were right there. You were assisting in this mining.

A. I have been there, yes.

Q. So you know which claims I am talking about, don't you?

(Testimony of John W. Hill.)

A. Well, we just talk about the area.

Q. In connection with these Dry Valley claims, that property actually belong to you, didn't it? Didn't those claims belong to you at one point?

A. I believe the company——

Mr. Holland: If the Court please, I assume Mr. Alioto is making Mr. Hill his own witness.

Mr. Alioto: No, your Honor.

Mr. Holland: None of this subject matter was gone into on direct.

Mr. Alioto: I certainly do not think that is true. There was a very broad examination about agreements.

Mr. Holland: We are perfectly prepared to explain——

The Court: I say now, as I have said before, that much of this evidence you are introducing now is absolutely immaterial to the issues in this case. We are just taking up time.

Mr. Holland: Of course, we have to answer it. We shall have to put on witnesses who know and who can explain this situation.

Mr. Alioto: Does your Honor mean that the exchange of oxide between those two companies at 80 cents and 65 cents, when both of them refused to supply the plaintiff's company, is not material in this case?

The Court: Certainly. It is just pure speculation all the way through.

Mr. Alioto: We would just like to make our record on it, because we, respectfully and defer-

(Testimony of John W. Hill.)

entially, do not agree with your Honor as to how competitive these two organizations were in the light of this evidence. I do not know a [1748] better way of establishing collaboration, if your Honor please, than the fact that one competitor supplies the other one with the raw materials.

Mr. Holland: We have people who know all about this.

Mr. Alioto: You can call them as witnesses.

Mr. Holland: He is cross-examining a man who was asked nothing about that subject on direct.

Mr. Alioto: Here is a man who said he knew nothing about agreements. That was a pretty broad question.

Q. (By Mr. Alioto): Mr. Hill, the Dry Valley claims were actually owned by your company and transferred by your company to the Vanadium Corporation of America, isn't that a fact?

The Court: If you know.

A. I don't believe they owned the claims. They may have had a lease agreement or contract.

Q. (By Mr. Alioto): They had a property right in those claims, in any event, and they transferred their property right to the Vanadium Corporation of America, did they not?

A. I know the Vanadium Corporation wound up with the claims. How they went about it I don't know. The claims actually belonged to the Molybdenum Corporation of America.

Q. Yes, but you had some kind of property right to mine [1749] them, didn't you?

(Testimony of John W. Hill.)

A. They acquired the property rights from a man named Leverett Davis and a man named Bosley in the vanadium.

Q. When you say they acquired——

A. U.S.V.

Q. And your company transferred that right to the Vanadium Corporation of America?

A. After they mined out practically all the ore that was there.

Q. And then you worked out this arrangement of mining their ore to compensate for the overdraft on the Maggie C.?

A. I can't tell you about that agreement.

Mr. Alioto: We offer this document in evidence to show the actual amount of business between these two firms, and that completes the whole Maggie C. transaction. It will be the last document we offer on this matter.

The Court: If that is the last one, we will let it go in.

Mr. Holland: This is already in evidence in a one-page document.

Mr. Alioto: The volume is not in evidence, Mr. Holland—the month-by-month volume.

Mr. Holland: Oh, no, not the month-by-month, but the total is. [1750]

(The computation referred to was thereupon marked Plaintiffs' Exhibit No. 150 in evidence.)

[See Book of Exhibits.]

Mr. Archer: If your Honor please, it is in Plaintiffs' Exhibit 8, put in three weeks ago.

(Testimony of John W. Hill.)

Mr. Alioto: Tell me how much they transferred, then, in December, 1941, if it is there already.

The Court: Cut out your arguing and go ahead with your examination.

Mr. Alioto: I would just like to call the jury's attention to the final settlement sheet on this transaction.

This is a letter from Mr. Blair Burwell, the general superintendent, to the Vanadium Corporation of America, dated April 7, 1942:

"Please find attached the final statement covering the Maggie C. Dry Valley production. This statement shows that the production of ore in Dry Valley and Maggie C. has been completed and the account has been closed and settled.

"Very truly yours,

"Blair Burwell."

And that account, in March of 1942, shows total pounds extracted to March 1, 1942, as full reports for February, the preceding month, as 733,551.13 pounds.

Q. (By Mr. Alioto): Now, again, that is vanadium oxide, isn't it, Mr. [1751] Hill?

A. I believe it is in that letter.

Mr. Alioto: Less correction of the total pounds extracted in accordance with the agreement between Mr. Blair Burwell and Mr. Frederick Kett, 15,703 pounds.

Q. (By Mr. Alioto): Mr. Kett was some kind of a mining superintendent for the Vanadium Corporation of America, was he not?

(Testimony of John W. Hill.)

A. Yes, he was in charge.

Q. But Mr. Burwell was, of course, your general superintendent? A. That is correct.

Mr. Alioto (reading): "Corrected pounds, 717,848. Shipped to March 1, 1942, 717,848 pounds of vanadium oxide."

Q. (By Mr. Alioto): That was in March of 1942. But no government agency forced you to do any of these things, did it? The government had nothing to do with this?

A. That was before the Metals Reserve.

Q. This was purely a private transaction between you and the Vanadium Corporation of America, wasn't it? A. It appears to be that.

Mr. Alioto: We have no further questions.

Cross-Examination

Q. (By Mr. Holland): Mr. Hill, I believe you testified that you had authority to set prices paid under the M.R.C. program for ore?

A. Yes. [1753]

Q. And what factors did you take into consideration in determining what the price would be?

A. All the factors of condition of mine—that is, the amount of ore available in the mine, that is, developed ore, and amount of exploration work to be required, the matter of roads—and everything involved in the operation of the mine.

Q. And the location of the mine? A. Yes.

Q. The inaccessibility? A. Yes.

Q. All that sort of thing? A. Yes.

(Testimony of John W. Hill.)

The Court: Yes, it is.

Mr. Holland: Okay.

Mr. Alioto: We will make the points in final argument.

Mr. Holland: I will change the question.

Q. Actually, it was Vanadium Corporation's business, as agents for M.R.C., in the operation of the Monticello plant, to deal with Wade and Curran, wasn't it—have dealings with Wade and Curran?

A. Well, they were selling us the ore.

This letter—that is dated in 1944, is that correct?

Q. February 4, 1944.

A. What they are referring, Wade and Curran, referring there to the fact that their ore purchase agreement, which is the O.P.A., has been cancelled by M.R.C.

Q. That's right.

A. And I suggested that they are looking for an outlet for their ore after the agency program is completed.

Q. And they are complaining about the contract being canceled, are they not?

A. We were directed by M.R.C. to cancel all the contracts, including theirs.

Q. Mr. Bransome had nothing to do with that, did he? A. No.

Q. That cancellation was made by M.R.C.?

A. Yes.

Q. And Mr. Bransome's only connection with the matter would be the president of the company

(Testimony of John W. Hill.)

which had operated the mill which had been milling their ore, is that correct? A. That is correct.

Q. And he wasn't trying to interfere in your duties with M.R.C. in this——

A. He was not.

Q. ——in this interview, is that correct?

A. He was not.

Q. Do you know when M.R.C. starting purchasing ore, do [1757] you know the date?

A. I don't know the exact date. It was shortly after June of 1942, because we set up the agency in June of 1942 and went into production just as soon as we could after that. It probably was 30 or 60 days later.

Mr. Holland: Thank you.

Redirect Examination

Q. (By Mr. Archer): Mr. Hill, did Continental Ore Company ever request United States Vanadium to mine any ore claims for him and deliver oxide to him, to your knowledge?

A. Not to my knowledge.

Q. Did you ever hear of the Continental Ore Company owning any claims on the Colorado Plateau?

A. I knew a lot of companies, but I don't remember them.

Q. In regard to the ore purchases by the Metals Reserve Company from Vanadium Corporation of America for delivery to the Monticello plant, were

(Testimony of John W. Hill.)

you authorized to do this by the Metals Reserve Company? A. Yes.

Q. Is this your authorization (showing witness)? I show you what has been marked Defendant Union's Exhibit E, dated November 2, 1942, being a letter agreement signed by G. Temple Bridgman and J. R. Van Fleet.

A. (Witness examining.) [1758]

Q. I think if you will look on the second page you will see. This is the amendment.

A. Yes.

Q. G. Temple Bridgman, who was he?

A. He was executive officer of the Metals Reserve Company.

Q. Was he ever employed by the United States Vanadium Company?

A. Well, not to my knowledge.

Q. I just would like to read this last portion here on this question of whether or not Metals Reserve Company buy ore from Vanadium Corporation.

This is an amendment to the original agreement and this is dated November 2, 1942:

"Pursuant to said agreement dated as of May 9, 1942, as so amended, we hereby designate the above mentioned plant in Monticello, Utah, as one of the plants to be supplied with vanadium purchased by us as our agent under said agreement, and, accordingly, we request you as promptly as possible to make the necessary arrangements to supply Vanadium Corporation of America with ore so pur-

(Testimony of John W. Hill.)

chased. A substantial part of the ore to be supplied by you for the operation of the Monticello plant is to be purchased by you from that corporation. That includes both productions from the mines as well as ore presently stockpiled [1759] at the Monticello plant. You are to purchase ore currently produced by Vanadium Corporation of America in accordance with said agreement dated as of May 1942 as amended. Instructions governing the purchase of ore stockpiled at the Monticello plant will be given to you."

This is an original letter from Metals Reserve Company, Washington, D. C., to Mr. J. R. Van Fleet, our vice-president, who is now dead, signed by G. Temple Bridgman, the executive vice-president, the man I mentioned who died a few years ago over in Marin County.

I have no further questions of Mr. Hill.

Recross Examination

Q. (By Mr. Alioto): Now, you didn't mean to tell Mr. Holland, did you, that Mr. Bransome had anything at all to do with the question of canceling the Wade and Curran contract?

A. He didn't have anything to do.

Q. Of course, he didn't. Do you know why then he intervened in this fashion?

A. Well, he was an official of the Vanadium Corporation at the plant that was treating the ore.

Q. Let me read this again:

"Wade and Curran were in today, not to see me

(Testimony of John W. Hill.)

but to see Mr. Bransome and Denny. They were quite [1760] put out regarding the whole matter and said they did not feel that their contract was subject to cancellation. Mr. Bransome is familiar with our general form and if their contract is on one of our O.P.A. forms, Mr. Bransome felt that there was no question that the contract is automatically cancelled when we stopped receiving ore. Evidently their next move is to see Dan Milenski in Cortez."

Now, on that specific subject matter of the cancellation of the Wade and Curran contract, Mr. Bransome was not authorized by Minerals Reserve (sic) or by you to do anything at all, was he?

A. I think the intent there was that Mr. Bransome was advising Wade and Curran, not us.

Q. Did Minerals Reserve (sic) authorize Mr. Bransome to advise Wade and Curran?

A. It's entirely his own affair.

Q. But you didn't authorize him to do it?

A. No. He wasn't working for us as the agents in ore procurement.

Q. And, specifically, you don't claim that he was authorized to enter into this conversation with Wade and Curran on behalf of the Minerals Reserve (sic), do you?

A. That was just a conversation between Wade and Curran and Mr. Bransome. [1761]

Q. And specifically, you didn't authorize Mr. Bransome, as the Minerals Reserve (sic) agent to enter into this conversation with Wade and Curran, did you?

(Testimony of John W. Hill.)

A. I don't get—I don't get the point. I mean, it's just——

Q. Regardless of whether you get the point, just tell us——

The Court: Did you authorize Mr. Bransome to do anything for your company?

A. No. He didn't work for us at all.

Mr. Alioto: Okay.

Q. Incidentally, who paid Mr. Burwell's salary and Mr. Van Fleet's salary, Mineral Reserve (sic)?

A. I don't know.

Q. Was it paid by the company?

A. I don't know.

Q. Well, you were the chief officer out there for Metals Reserve Company (sic), Mr. Hill?

A. I didn't pay him. I can say that.

Q. Well, don't you know that U.S.V. paid him and not the government?

A. I don't know. I really don't know.

Q. Who handled the payroll checks out there in Colorado?

A. I did in the agency agreement, but Mr. Burwell was just in and out of there. I don't believe I saw him even three times in a couple of years.

Q. I am asking you——

The Court: He has answered your question.

Mr. Alioto: I don't think he has, if your Honor please. This man made out the payroll.

The Court: He has answered your question. That is all there is to it. He said he didn't know.

(Testimony of John W. Hill.)

Mr. Alioto: A man who makes out the payroll checks doesn't know, if your Honor please? We ought not to accept that from an adverse witness. I don't want to argue with the Court, but I submit that I ought to be——

Would the Court ask this last question, then: Did the payroll accounts which he supervised include the name of Burwell, Van Fleet, or any other officer of——

The Court: Do you know — do you know who paid Burwell's salary?

A. I don't know. I can say that he wasn't on the payroll that I had.

Mr. Alioto: All right. That's all we want. He wasn't on your payroll.

Q. Finally, why was this letter from Mr. Edwards to you on this Bransome matter marked "Personal"? What was personal about it?

A. I don't know.

Q. This was government business, was it?

A. I imagine so, I don't know why it was marked "Personal." [1763]

Q. At the time you received the letter, did you comment about the fact that it was marked personal?

A. No. I imagine he wanted to have it come direc. to me and not go through other channels.

Q. Okay. Just one last question. Under your Minerals Reserve (sic) program, were you instructed to buy from miners who were already seling to independent mills?

(Testimony of John W. Hill.)

A. We would buy ore that was available—well, we bought ore wherever we could get it.

Q. My question is, sir——

A. And we bought ore that was available to us.

Q. Let me ask this——

A. We didn't—we tried not to interfere with the production of any of the plants.

Q. In other words, your instructions were not to interfere with production at the plants, were they not?

A. We tried to see that the plants were kept running.

Q. My question is: Your instructions were to that effect, were they not?

A. I believe they were, yes.

Q. And who gave you those instructions?

A. I think Mr. Burwell.

Q. All right. But the fact is that you did take miners away from the Nisley and Wilson plant, isn't it?

A. No, I wouldn't say that. [1764]

The Court: We will recess at this time.

(Short recess taken.)

Mr. Alioto: If your Honor please, at the close of last night's session — I might say preliminarily I have nothing further of Mr. Hill.

At the close of last night's session I asked Mr. Remmers if he was going to be around any longer. I had in mind putting in evidence a letter written by him October 13th, 1943, with respect to the condition of supply at the time.

(Testimony of John W. Hill.)

Except for offering this letter, we have nothing further of Mr. Remmers. I wanted to make that statement so he would not stay here on account of any questions I might have.

The Court: Is there any question about that?

Mr. Archer: Your Honor, I think it should go in through Mr. Remmers. I will see if I can get in touch with Mr. Remmers at noontime, and if I can, I will bring him back this afternoon.

Mr. Alioto: All I care to do is to ask him if he wrote this letter and put it in. If Mr. Archer can stipulate that he wrote it, I will put it in now and save him the trouble of returning.

Mr. Archer: I would like to read it first, your Honor.

The Court: Very well. [1765]

Mr. Archer: I believe counsel has indicated he has no further questions of Mr. Hill, your Honor, so I will call my next witness, Mr. Holmes.

CHARLES M. HOLMES

called as a witness by and on behalf of the defendant, being first duly sworn, testified as follows:

The Clerk: Will you give us your full name, please, and your residence address?

The Witness: Charles M. Holmes, Rassel Building, Grand Junction, Colorado.

Direct Examination

Q. (By Mr. Archer): What is your occupation, Mr. Holmes? A. I am an attorney at law.

(Testimony of Charles M. Holmes.)

Q. Were you acquainted with the Mesa Vanadium Company? A. I was.

Q. Is that map still up there? Can you point out where that was.

A. That was in the Slick Rock area, close to Cedar, on Disappointment Creek, right where Disappointment Creek runs into the Dolores River.

Q. Were you one of the original investors in that company? A. I was.

Q. What happened to that company?

A. We lost our money and the company went defunct. [1766]

Q. Why did it go defunct?

A. Well, to get back to the beginning, Frank Nisley approached a group of us in August of 1939 and said that he had developed a new process for roasting vanadium ores, and a party by the name of Coe Van Deren, Buttolph and myself, met with Mr. Nisley and he stated if he could raise $4,000, that he could put up a mill using his process that would make vanadic acid.

So we put up the money and incorporated the Mesa Vanadium Company, and we located a mill that was partially built near Cedar which we purchased for $2,000, plus the back taxes against it, and Mr. Nisley had had——

Mr. Alioto: If your Honor please, may we proceed on the basis of question and answer so that we can save a record on this matter, rather than a narrative story by an attorney?

(Testimony of Charles M. Holmes.)

The Court: Well, he said his company failed and he was just giving the history.

Mr. Alioto: I was wondering if we can't proceed on the basis of questions and answers.

The Court: Let him go ahead. It is in the record. Go ahead and finish your story.

The Witness: Mr. Nisley had had a small pilot plant. We built a little larger roaster. It is what is called a batch roaster. It has possibly been explained in the [1767] evidence here.

And we installed a couple of those and experimented with them, and by February 1940 we had put in an additional $10,000, and still the process was not satisfactory.

Mr. Nisley then resigned as director and we got a couple of mining engineers named Claybaugh and Simpson to come in, and they agreed they would try to make the process satisfactory, and they operated a mill for about ten days.

At the end of the ten days they sold the vanadic acid or the red cake—it was red cake—to the U.S.V. and they found that the recovery was a little less than 40 per cent, and they dropped it like a hot potato and that was the end of our vanadium venture.

The mill was not economically practical.

Mr. Alioto: I make a motion to strike that, if your Honor please. This illustrates the vice of letting a narrative statement go on where we cannot make any kind of record.

(Testimony of Charles M. Holmes.)

The Court: Overruled. Overruled. Exception allowed. Let him go ahead and make his statement.

Mr. Alioto: I submit, if your Honor please——

The Court: He would know about this.

Mr. Alioto: An attorney who has not been qualified as a mill man is not competent, I submit, to give an opinion as to whether a thing was economically satisfactory. [1768]

The Court: That is all right. He has answered the question. The objection is sustained—overruled, and exception is allowed.

Go ahead with your statement.

A. The next, we didn't have any further finances, so we contacted the United States Vanadium Corporation and made a deal with them whereby they used our mill for stockpiling. They agreed to give us two and a half cents a pound overriding royalty on the ore that was stockpiled there, and we gave them a 60-day option to experiment with this process, and they did some experimenting with it.

At the end of two or three months they turned the plant back to us and it was junked, so to speak. I did sell one crusher for $500 and the rest of the plant we turned back to the county. The taxes in the meantime had not been paid and we did not feel disposed to sell the equipment with the back taxes, so we liquidated the company.

Q. (By Mr. Archer): Did Mr. Burwell, or did the United States Vanadium Company buy the mill or the land surrounding it?

(Testimony of Charles M. Holmes.)

A. No, no part of it.

Q. They didn't buy the mill? A. No, sir.

Q. Did Mr. Burwell or the United States Vanadium Company put you out of business?

A. Certainly—— [1769]

Mr. Alioto: That is objected to, if your Honor please.

The Witness: Certainly not.

Mr. Alioto: I think that calls for the conclusion of the witness. The Jury has heard Mr. Burwell's testimony, and they can compare it to that of a man who was an attorney and apparently not active in the operation.

The Court: Sometimes an attorney knows something about which he is talking. I don't know of any reason why he can't answer the question. I think he is thoroughly competent to answer the question.

Mr. Alioto: May I have the question read?

(The reporter read as follows: "Q. Did Mr. Burwell or the United States Vanadium Company put you out of business?")

Mr. Alioto: Your Honor holds that that is a proper question to put to this witness?

The Court: You might ask him what they did.

Mr. Alioto: Yes, I would think so.

Q. (By the Court): What did they do that caused you to go out of business?

A. They did nothing whatever in fact. They took over some leases that we had on the McKee Claims, and they paid us a royalty on that ore, and we recouped something like $10 or $12 thousand in

(Testimony of Charles M. Holmes.)

four or five months from the U.S.V. [1770] and had the mill left. But we couldn't get finances to operate it. The fact is we did hire a good consulting engineer on vanadium, a man by the name of Alf Tellman, to try to check the process, and we just couldn't make it up.

Q. Did any other company do anything to your knowledge that interfered with the success of your operation? A. Nothing whatever.

Q. (By Mr. Archer): Did you have enough ore to run your mill while it was running?

A. Yes, we had plenty of ore. We had, of course, a lease on the McKee claims and then we bought a little commercial ore from miners around there, but, of course, we didn't require very much.

Mr. Archer: I have no further questions of Mr. Holmes.

Cross Examination

Q. (By Mr. Alioto): Mr. Holmes, did you personally negotiate with the U.S.V. in connection with the take-over of your mill?

A. Yes, sir. Mr. Burwell met up in my office and we entered into that contract. It was just an option.

Q. When did that meeting take place, sir?

A. When?

Q. Yes.

A. In about May in 1940, to the best of my recollection. [1771]

Q. And who was present?

A. Mr. Simpson, Mr. Claybaugh, Mr. Burwell, and myself, is all that I recall.

(Testimony of Charles M. Holmes.)

Q. Do you have a copy of the option you negotiated with them?

A. I don't have it with me.

Q. Where is it?

A. I have it in my files.

Q. Where? A. At the hotel.

Q. Will you be good enough to get that during the noon hour and bring it back so we might look at it? A. I can.

Mr. Alioto: May we defer cross examination until that time, if your Honor please?

The Court: Go ahead.

Q. (By Mr. Alioto): Let me ask you further: What other documents do you have in your hotel room that you did not bring into the courtroom?

A. Oh, I have several. [1772]

Q. What are they? What is their nature?

A. I have the preliminary agreement with Frank Nisley whereby he got 60 percent of the stock for assigning the patent to the process over to the company to be organized.

Q. Well, do you have generally the papers—. You brought to San Francisco, I take it, the papers that you thought related to this discussion about which you have testified?

A. That is correct.

Q. Would you be good enough to bring them all to the courtroom this afternoon?

A. I can. I would like to leave on that—I have got reservations on the plane at one o'clock, now.

(Testimony of Charles M. Holmes.)

Q. I would like very much to see these documents.

I think they are germane, if your Honor please, and I think——

The Court: I can't see that they have anything to do with this lawsuit.

Mr. Alioto: An option with the United States Vanadium Corporation might have a lot to do with this lawsuit.

The Court: Not a thing to do with this lawsuit. Didn't he have a right to deal with them the same as any other company?

Mr. Alioto: In view of Mr. Burwell's testimony that his purpose in doing what he did was to eliminate this [1773] production from the American market, I think it is unrealistic for your Honor to say it has nothing to do with this lawsuit, and I say that respectfully, if your Honor please.

The Court: Very well. And I just as respectfully say that much of this evidence has nothing to do with the lawsuit. It is purely speculative.

Mr. Alioto: All right.

The Court: And there is no basis for it. I think we ought to get down to something that has something to do with this lawsuit.

Mr. Alioto: The witness indicates he is willing to get these documents for me. Would your Honor request him to bring them into court?

The Court: You can bring the papers over and we will excuse you right now. You can go and get your papers.

(Testimony of Charles M. Holmes.)

Mr Alioto: Thank you very much, sir.

Mr. Archer: I think you ought to go get them, if you want to try to make the one o'clock plane.

The Witness: I will go right now.

Mr. Archer: O. K.

Mr. Alioto: Thank you very much.

(Witness excused.)

The Court: You can call another witness.

Mr. Archer: Thank you, your Honor.

As my next witness I call Dr. Emigh. [1774]

G. DONALD EMIGH

called as a witness on behalf of the defendants, having been previously duly sworn, testified as follows:

Direct Examination

Q. (By Mr. Archer): Will you state your name and address, Dr. Emigh?

A. My name is G. Donald Emigh; my home address is 554 West Big Bend, Webster Groves 19, Missouri.

Q. By whom are you presently employed, Dr. Emigh?

A. I am employed by the Monsanto Chemical Company.

Q. What was your training as an engineer?

A. I have several degrees from universities; I have a bachelor of science in mining engineering, a master of science in metallurgy, and a doctorate in geology. These are from the University of Idaho and the University of Arizona.

(Testimony of G. Donald Emigh.)

Q. Your name has been mentioned in connection with the United States Vanadium Company as agents for the Metals Reserve program during the war. What was your function in that regard?

A. First, I was called by Mr. Van Fleet, the head of my company, the United States Vanadium Corporation, from the position I then held at Bishop, California, assistant manager of the Pine View tungsten mine—I was called by Mr. Van Fleet to take care of the lead vanadate agency for Metals Reserve, which our company had entered into. [1775]

And I spent the period, then, of May, 1942, until October, 1942, in charge of this operation, with headquarters in Tucson, Arizona.

We recommended this program be stopped because it was not economical. We were at war, and we could not see the advantage of wasting money at that time, which represented men and material. We recommended this be stopped, and Metals Reserve did terminate the program in October of '42.

At that time Mr. Van Fleet called me to New York City and asked me to take over the administration of our two other Metals Reserve agencies, one to produce vanadium from the Colorado Plateau sandstones, and the other to produce tungsten.

Q. And whom did you report to in regard to the vanadium agency?

A. Mr. Hill, Mr. John Hill, for the most part, and Mr. Tom Brock.

John Hill was in charge of the ore procurement;

(Testimony of G. Donald Emigh.)

John Brock was in charge of operation of the Durango plant.

Q. And John Hill was one of the witnesses who testified this morning here? A. Yes, sir.

Q. Did you make reports of your operations to the Metals Reserve Company officials in Washington?

A. Yes, sir, I reported regularly to Metals Reserve in Washington, D. C. [1776]

Q. And to what officials did you report?

A. Largely to Mr. Bridgman, who was the executive vice-president, and also to Mr. H. DeWitt Smith, who, I believe, was the vice-president of Metals Reserve.

Q. Were your operations conducted according to sound engineering practice? A. Absolutely.

Q. Did you have any conversations with Continental Ore Company, the plaintiff in this action, regarding production from the Nisley & Wilson mill?

A. Yes, sir, I did.

Q. Do you recall when those occurred?

A. They occurred in the late spring of 1943.

Q. Do you recall with whom you spoke? First, were these conversations in person, or by telephone?

A. They were both. I was in New York most of the time throughout this period, and I had both telephone contacts, letter contacts, and, as I recall, a personal contact or two with Continental Ore. I believe the party was Mr. Wolf.

Q. What was the substance of your conversations at this time?

(Testimony of G. Donald Emigh.)

A. It had to do with rather a substantial order for fused vanadium oxide that Continental Ore had obtained from Metals Reserve from the production from the Nisley & Wilson operation at Gateway.

Mr. Alioto: Excuse me, if your Honor please.

Will you fix the persons present at this conversation?

Q. (By Mr. Archer): Can you separate—well, can you do that, Dr. Emigh?

A. What is the question, again?

Q. (By The Court): Who were present at this conversation with Mr. Wolf?

A. I can't even be sure it was Mr. Wolf. I believe it was Mr. Wolf.

I don't recall if anybody else was there or not, but I do recall several telephone conversations, and I believe they were with Mr. Wolf.

Coming back to your question, the subject of these contacts at that time had to do with a rather substantial order for fused vanadium oxide that Continental Ore had obtained from Metals Reserve from the production of the Nisley-Wilson plant. Continental Ore——

Q. (By Mr. Archer): Well,——

A. Pardon me.

Q. ——I will just ask you, did Continental Ore accept the order from the Nisley-Wilson plant?

A. No, sir, they did not. And that surprised me.

Q. Well,——

Mr. Alioto: I make a motion, your Honor, to strike [1778] "that surprised me," by an interested

(Testimony of G. Donald Emigh.)

witness, if your Honor please. I will make a motion to strike.

The Court: Well, you might be surprised, but we will strike it from the record.

Q. (By Mr. Archer): I will show you a letter dated July 26, 1943, from J. K. Gustafson, a copy of a letter to yourself.

A. Yes. I don't recall the letter particularly, but it is sent to me, so I must have had received it. It is from Metals Reserve.

Mr. Archer: Offer this as defendants' next exhibit in order.

Mr. Alioto: Object to it, if your Honor please. It is the worst kind of hearsay—a letter by a Mr. Gustafson who isn't here to this witness.

May I have a voir dire on this?

Q. (By Mr. Alioto): Was a copy of this letter ever shown or ever given to the plaintiffs in this case? A. I don't know, sir.

Mr. Alioto: Well, I object to it on the ground it is the worst kind of hearsay.

Mr. Archer: Your Honor, I offer it to show the directions this man received. I think the Metals Reserve Company has certainly been injected into this action, and his [1779] instructions — and I think the allegation has been made here that the Metals Reserve Company was not operating under the authority of the officials in Washington. And I am offering this to show the information that this witness received as agent for the Metals Reserve Company from the officials in Washington.

(Testimony of G. Donald Emigh.)

Mr. Alioto: That is the very point; he is offering a hearsay statement that we can't cross examine.

The Court: Objection is overruled. We have gone into this now day after day.

Proceed.

Let it be admitted.

(The letter referred to was thereupon marked Defendant U Exhibit 5-R in evidence.)

Q. (By Mr. Archer): Who is Mr. Gustafson?

A. Mr. Gustafson was a consultant employed by the Metals Reserve in Washington, D. C., and was there helping to handle their agency agreements.

Mr. Archer: This is a letter dated July 26, 1943, from Metals Reserve Company, Washington, D. C. —copy of a letter—to Mr. G. Donald Emigh, United States Vanadium Corporation, agent for Metals Reserve Company, 30 East 42nd Street, New York, New York:

"Re: Nisley-Wilson Vanadium Production.

"Dear Mr. Emigh:

"The contract dated April 20, 1943, covering the sale to Continental Ore Company by Metals Reserve Company of 17,834 pounds of vanadium pentoxide produced at the plant of Nisley & Wilson at Gateway, Colorado, was cancelled July 15, 1943.

"Until such time as the War Production Board allocates this material, will you kindly continue to stockpile it as heretofore?"

Mr. Alioto: Now, if your Honor please, now that the Court has heard the letter, and we have objected to anybody hearing it, I suggest that there is no

(Testimony of G. Donald Emigh.)

opportunity for this plaintiff to cross examine Mr. Gustafson as to the background of that cancellation, and we are left——

The Court: You introduced a great, long address delivered by Mr. Gustafson. You are the one that has introduced Mr. Gustafson.

Mr. Alioto: I think your Honor is perhaps—I say respectfully—not aware of the fact that Mr. Gustafson's address was in connection with the atomic energy program in 1947, and not in connection with Metals Reserve at all.

The Court: The objection is overruled. Let's get along.

Q. (By Mr. Archer): Dr. Emigh, did the Continental Ore Company ever accept [1781] any of the production of Nisley & Wilson while they were operating under the toll agreement?

A. I don't believe so, no, sir.

Q. (By the Court): Do you know of your own knowledge why the Continental Ore Company didn't take this ore?

A. I know the reasons, your Honor, that they told me why they didn't take it.

Q. Who told you?

A. Well, it was—these people—I was—I think Mr. Wolf was the man.

Q. Will you state what they said about it?

Mr. Alioto: Will you fix the time, place, and circumstances, if your Honor please?

A. Well, it's going to come back to my question

(Testimony of G. Donald Emigh.)

—or my statement that I was surprised. I will have to bring that in again, I am afraid.

Continental Ore evidently arranged this order directly with Metals Reserve. We had nothing to do with it as agents for Metals Reserve.

Mr. Alioto: That is obviously hearsay, if your Honor please. I make a motion to strike.

The Court: No, I think it is entirely competent.

Mr. Alioto: He says "evidently" they arranged it. How can he know except by hearsay, if your Honor please? [1782]

The Court: Objection is overruled.

Mr. Alioto: Yes.

A. (continuing) The first we knew about it as agents for Metals Reserve, we received instructions from Metals Reserve to deliver this quantity to Continental Ore.

Q. (By The Court): That's the first you knew about it?

A. That's the first we knew about it.

Q. Go ahead.

A. Then Continental Ore, as I recall, got in touch with me as to the size of the product, and I told them that it was minus one-half inch.

Continental Ore said they couldn't use this material of this size and wanted to know whether we couldn't arrange to have Nisley & Wilson, at their plant at Gateway, Colorado, make a smaller product.

We looked into that and determined that the Nisley-Wilson plant was not set up to do so.

(Testimony of G. Donald Emigh.)

But what surprised me was the fact——

Mr. Alioto: I make a motion to strike his surprise, if your Honor please. Even your Honor can't contend that that is competent evidence.

The Court: Objection overruled.

A. ——was that Continental Ore had already taken similar material as this from our Durango operation, exactly the same [1783] kind of product, the same size.

Mr. Archer: Well, your Honor, at this time I would like—this exhibit is already in evidence, but I would like to read it, because it refers to this transaction, at this time.

This is a letter dated December 31, 1942, from Henry J. Leir to the United States Vanadium Corporation, Agent, Metals Reserve Company, Durango, Colorado, Attention Mr. T. W. Brock, Superintendent:

"Gentlemen:

"Re: Vanadium Concentrates."

Q. (By Mr. Archer): Now, this T. W. Brock was one of the men you stated worked for you?

A. He was Tom Brock, the superintendent of the plant.

Mr. Archer (continuing reading): "We wish to refer to your shipments to us of the above material and should like to draw your attention to the weights of these shipments.

"We found in the two shipments the following shortages: First shipment of 27 sacks, shortage 19 pounds; second shipment, 48 sacks, shortage 88.40

(Testimony of G. Donald Emigh.)

pounds. So that the total shortage on these two shipments is 107.40 pounds.

"We should very much appreciate your checking the [1784] weights on future shipments carefully in order to avoid such shortages.

"Thank you for your cooperation."

Q. (By Mr. Archer): Now, were these the prior shipments to which you referred in your testimony?

A. Yes, sir.

Q. And was the Durango product the same, substantially the same product, as that produced by Nisley & Wilson? A. Yes, sir.

Q. Who was C. J. Moynihan, Jr.?

A. It was Jack Moynihan. He was an accountant for us on the Metals Reserve agency program in Colorado.

Mr. Archer: To finish this Durango transaction I offer, your Honor, as one exhibit, as defendants' exhibit next in order, a letter from Mr. Moynihan to the Continental Ore Company dated January 11, 1943, and Mr. Leir's reply dated January 14, 1943.

Mr. Alioto: This had nothing to do with this witness, but we have no objection.

The Court: Very well.

(The letters referred to were thereupon marked Defendant U Exhibit 5-S in evidence.)

Mr. Archer: This is from the United States Vanadium Corporation, Agent for Metals Reserve Company, [1785] Durango, Colorado,——

Q. (By Mr. Archer): That is where the big Metals Reserve plant was, was it not?

(Testimony of G. Donald Emigh.)

A. Yes, sir.

Mr. Archer: Dated January 11, 1943. It is a reply to the previous letter which I read:

"This will acknowledge receipt of your letter of December 31, 1942, to Mr. T. W. Brock.

"As we just recently installed new scales for weighing concentrates and have then set up and checked by a factory representative, we are unable to understand the weight discrepancies on our first two shipments as shown by you.

"We shall greatly appreciate receiving from you a description of the condition of the bags upon their arrival at destination, as it would appear from the difference in weight involved some of the bags may have been torn in handling, thus allowing a considerable amount of leakage."

And Mr. Leir replied, on January 14, 1943:

"Gentlemen:

"We received your letter of January 11th and took note of your comments.

"It may be that at least part of the shortage was [1786] caused by leaking bags, because both shipments contained a few each which were not in good condition.

"We will watch this matter, particularly when your next lot arrives, and we will write you further."

Mr. Archer: I have no further questions of Dr. Emigh, your Honor.

(Testimony of G. Donald Emigh.)

Cross Examination

Q. (By Mr. Alioto): Dr. Emigh, do you know Mr. Van Fleet? A. Very well, sir.

Q. Do you know approximately the time he died? A. Yes, sir.

Q. Did you go to his apartment after he died?

A. I did.

Q. Where did he die?

A. He died in Tucson, Arizona.

Q. And how long after his death did you go to his apartment?

A. I don't recall. I'm not sure it was after his death. I went to his apartment at the request of Mrs. Van Fleet.

Q. Well, how long was it before or after his death?

A. It was—I'm not sure it was even after his death. It could have been, and I believe it was shortly before his death—it was obvious to Mr. Van Fleet that he was not going to live. [1787]

Q. And did there come a time when Mr. Remmers reprimanded you for going to the apartment?

A. I don't recall that particularly. I believe that I told Mr. Remmers I had gone there, and I think that he felt as a matter of principle perhaps I shouldn't. However,——

Q. Did he mention the principle—excuse me, sir. Where did this conversation between you and Mr. Remmers take place?

A. Mr. Remmers' office, I am sure.

(Testimony of G. Donald Emigh.)

Q. And approximately when was it?

A. Well, it would have been approximately the latter part of October, 1947.

Q. And was Mr. Van Fleet dead at the time of your conversation with Mr. Remmers?

A. I do not know. It was just about that time. It may have been a week or two either way.

Q. What did Mr. Remmers say about why it was wrong for you to go to the apartment?

A. He didn't say anything particularly, sir. He rather felt as a matter of principle that perhaps it wasn't right for an outsider to go into this man's apartment. However, he did not understand the relationship between Mr. Van Fleet and myself, nor did he understand the relationship I had with the family, nor did he understand that Mr. Van Fleet had asked me to go to the apartment.

Q. Did you go to the apartment to find certain private [1788] papers of Mr. Van Fleet that he had in there? A. No, sir.

Q. Did you ask about those papers?

A. No, sir.

Q. When you went to the apartment did you try to get into it?

A. I got into the apartment.

Q. Who let you in? A. Mrs. Orr.

Q. A woman named Mrs. Helen Orr?

A. Mrs. Helen Orr.

Q. She lived in the apartment down below, did she? A. Yes, sir.

(Testimony of G. Donald Emigh.)

Q. And you got the key from Mrs. Orr to get into the apartment? A. That is right.

Q. At the time you got into the apartment did you walk over to an area where a working desk was located?

A. I didn't, throughout my examination of the apartment as a whole, did not go there to look at his desk, or any particular thing.

Q. Did you ask Mrs. Orr what happened to the private papers that Mr. Van Fleet had in the apartment?

A. I did in a subsequent meeting; not at that meeting.

Q. Well, did you ask her anything about papers at that [1789] first meeting? A. No, sir.

Q. You just asked her to let you in?

A. That is correct.

Q. Then you looked around the apartment?

A. Yes, sir.

Q. At the time you looked around the apartment had you been told, either by Mr. Van Fleet, by Mrs. Van Fleet, or by Mr. Burwell, that Mr. Van Fleet had taken certain papers from the files of the United States Vanadium Company?

A. No, sir.

Q. Did you know at that time that he had some papers from the files of the United States Vanadium Company? A. No, sir.

Q. You had meetings with Mr. Van Fleet in that apartment, had you not? A. I had, yes.

(Testimony of G. Donald Emigh.)

Q. Where was that apartment located, Mr. Emigh?

A. It was 35—let's see—20 East 35th Street, New York City, as I recall.

Q. And long before his death were you in that apartment with Mr. Van Fleet?

A. I can't tell you exactly, because Mr. Van Fleet lingered some time in Tucson before he passed away. I don't recall how long that was. That might have been two or three [1790] weeks, or a month. He was a week or two in the hospital in New York before he was shipped to Tucson.

I might say, then—so there could have been six weeks or—so it was six weeks or two months before he died that I was in the apartment with him.

Q. Had you been in that apartment with him on many occasions when Mr. Burwell was present?

A. Yes, sir.

Q. And didn't you hear both Mr. Van Fleet and Mr. Burwell complain, in your presence, about the fact that United States Vanadium Corporation had certain agreements with the Vanadium Corporation of America restricting sales?

A. Quite the opposite, sir.

Q. You never heard these two men say that to you?

A. They could not have said that to me.

Q. I am asking you whether you ever heard them, not whether they could or whether they did.

A. They did not say that to me.

Q. They did not? A. No, sir.

(Testimony of G. Donald Emigh.)

Q. Now then, on the occasion of your first visit, did you look for papers?

A. I looked for everything in the apartment to get some idea as to what was there and what I would have to pack up and ship to Mrs. Van Fleet.

Q. Where was Mrs. Van Fleet at the time?

A. At Tucson, Arizona.

Q. Did she give you instructions to go into the apartment? A. Yes, sir.

Q. She did? A. She did.

Q. In writing?

A. I don't recall. I was in telephone contact with her. I do believe that she wrote me. But that was a long time ago.

Q. Do you have the letter?

A. Well, I don't have any such letter now, no, sir.

Q. Have you looked for the letter?

A. No, sir, I have not.

Q. You knew before you came to the stand, I take it, that these questions were going to be asked?

A. I did not. I did not know what you might ask me.

Q. Weren't you told that this might be one of the subject matters I would inquire about?

A. No, sir.

Q. Didn't you discuss this with your attorney before you came here? A. No, sir.

Q. All right, then. You did have a conversation with Mrs. Helen Orr at some time in which you inquired about certain [1792] papers, did you?

(Testimony of G. Donald Emigh.)

A. I did, the next day after I made the first trip and saw the papers, because I went down the next morning to get those papers——

Q. Yes. And what did you say to Mrs. Orr?

A. They weren't present. And I asked her where they were.

Q. Yes?

A. She told me that she had sent them to Mr. Burwell the night before.

Q. Now then, you went and told Mr. Remmers about this visit, did you?

A. No, sir, I never told Mr. Remmers about this. I told Mr. John Horn, who was——

Q. Who was he?

A. The vice-president of United States Vanadium Corporation at that time, as I recall.

Q. What did you tell Mr. Horn about these papers that were sent out to Blair Burwell?

A. I simply told Mr. Horn the papers were gone; that I was told that they were sent to Mr. Burwell.

Q. Why did you tell Mr. Horn that? What business was that of his?

A. Because I reported to Mr. Horn. He was my immediate superior.

Q. Were you carrying on this function, then, for the [1793] United States Vanadium Corporation, or for Mrs. Van Fleet?

A. Which function do you mean?

Q. The function of going looking for papers.

A. Well,——

(Testimony of G. Donald Emigh.)

Mr. Archer: I don't believe he stated that was his function, your Honor. I think he said that the deceased man's widow asked him to go to the apartment.

Mr. Alioto: And I want to know why he reports the results of that to a vice-president of the United States Vanadium Corporation, unless he ties it up with the business purpose. That is what I am inquiring about.

The Court: It seems that would be immaterial.

The Witness: Of course, I think that I had noticed at the beginning, when I first saw these papers, that they were company correspondence. I didn't even go through them.

Q. (By Mr. Alioto): Then you——

A. So naturally I mentioned to Mr. Horn that I had seen some correspondence there. Neither of us were surprised at that, because all executives take correspondence home and have it there. I do, myself. You take it home to read it or study it and you bring it back to the office from time to time.

Neither of us gave any thought to it. [1794]

Q. Well, did you see Mr. Horn between your two visits, or after your second visit?

A. I saw Mr. Horn after my first visit.

Q. Yes. Then he told you to go back and get the papers, didn't he?

A. He told me—yes, he said, "If those are company papers they should be in our files here," and

(Testimony of G. Donald Emigh.)

asked me to get them. But I went back the next morning and they were gone at that time.

Q. So the specific purpose of your second visit was to get those papers, wasn't it? A. Yes, sir.

Q. When Mrs. Orr told you that she had mailed them to Blair Burwell the night before, what, if anything, was said between you and Mr. Horn about getting those papers?

A. I don't believe anything was said. As a matter of fact, neither one of us thought much of it. Mr. Burwell wasn't an official of the United States Vanadium, certainly in good standing.

Q. Well, didn't you ask him to give you Van Fleet's papers? A. Mr. Burwell?

Q. Yes.

A. Mr. Burwell was in Colorado, as I recall.

Q. Yes.

A. I didn't contact him about it. [1795]

Q. How did Remmers get into this act—Mr. Remmers; I am sorry. A. I don't know.

Q. How did Mr. Remmers get into that act?

A. I don't know. Perhaps I told them I was going down to the apartment to help take care of things for Van Fleet. I must have done that.

Q. The only one you talked to was Horne, wasn't it?

A. No, no, I talked to Horne about the papers. I didn't talk to Mr. Remmers about the papers.

Q. Did Mr. Remmers reprimand you or say that there was something wrong in principle before you went back?

(Testimony of G. Donald Emigh.)

A. I don't recall whether it was before I went back or not. I just don't recall. This was 15 years ago.

Q. Was the MacQuigg report among those papers?

A. I have never heard of the MacQuigg report until this trial.

Q. You helped prepare it, didn't you?

A. I certainly did not.

Mr. Alioto: May I have Exhibit 47, please.

Will your Honor indulge me a moment?

Q. Did you know a Mr. Critchett in your organization? A. Yes.

Mr. Archer: I object to this, your Honor. They asked if this man prepared the report, which is a report which [1796] has been excluded. It is far beyond the scope of the direct examination, and I object to any further questions.

Mr. Alioto: I want to find out if this was one of the papers he was after on that day.

Mr. Archer: That is beyond the scope of the direct examination.

The Court: He has told you that he did not know what the papers were. He didn't examine them.

The Witness: May I ask you when the MacQuigg report was prepared?

Q. (By Mr. Alioto): June, 1935.

A. I joined the company in May of 1937.

Q. Well, now, sir, the MacQuigg report was a matter that was discussed very much in that organization right down to 1947, wasn't it?

(Testimony of G. Donald Emigh.)

A. No, sir.

Q. You never heard of a discussion of the MacQuigg report?

A. I never heard of it. I never did.

Q. In any event, is it your statement you do not know whether the MacQuigg was one of the papers in that apartment house?

A. I don't know what the papers were in the apartment house. I didn't concern myself to examine it.

Q. Were they in a folder of some type? [1797]

A. They were in some kind of a folder, an open manila folder of some sort, sir.

Q. And you knew that they related to the vanadium situation, didn't you?

A. Yes, because I could see the company letterhead was used.

Q. Which company letterhead?

A. U. S. Vanadium Corporation.

Q. Didn't you examine those documents and see whether they specifically related to the vanadium situation? A. No, sir. I did not.

Q. Or whether they related to agreements between U.S.V. and V.C.A.

A. Absolutely not.

Q. At the time you were in this apartment, your company was under indictment for monopoly charges, was it not, in the vanadium business?

A. Yes, sir.

Q. And wasn't it your purpose to get those doc-

(Testimony of G. Donald Emigh.)

uments so that they could be destroyed and not brought out at that trial?

A. No, sir, I told you the purpose of my visit.

Mr. Alioto: We have no further questions.

The Court: Anything further?

Mr. Archer: No further questions, your Honor.

Doctor Emigh, you are excused. Thank you very much.

(Witness excused.) [1798]

I notice that Mr. Holmes has returned to the courtroom with his letters. As he wants to catch a 1:00 o'clock plane, I suggest that he be recalled.

The Court: Very well.

CHARLES M. HOLMES

recalled as a witness by and on behalf of the defendants, having been previously duly sworn, testified further as follows:

Cross Examination—(Continued)

Q. (By Mr. Alioto): Sir, do you have with you all the letters——

The Court: Just a moment. Do you want to submit these to them for examination, or do you want to cross-examine him now?

Mr. Alioto: I want to have the documents, if your Honor please, before I talk to him about them.

The Court: I don't know what the documents are. I don't know whether they are material or not.

(Testimony of Charles M. Holmes.)

Mr. Alioto: He has stated they relate to this Mesa transaction.

The Court: You may ask him about them and then we will come to it.

Q. (By Mr. Alioto): Mr. Holmes, the documents you have with you relate to the Mesa Vanadium Company, do they not? A. Yes, sir.

Q. And they relate to certain transactions you had with [1799] United States Vanadium Company, is that correct? A. Some of them do, yes.

Q. Do you have those documents, for example?

A. You asked me first about the deal with the Nisleys, or I mentioned that, the origin of Mesa, and this is the original agreement made August 4, 1939 between the Nisleys, Charles H. Buttolph, Coe Van Deren, and Charles Holmes.

Q. Yes. May I see that, sir?

Do you also have other documents relating to the negotiations with United States Vanadium Corporation, specifically with Mr. Burwell?

A. I have an agreement dated May 7th, 1940, where they took the 60-day option on the mill. That was with the United States Vanadium Corporation.

Q. May I see that, sir?

Do you have any other documents relating to your negotiations either with Mr. Nisley or Mr. Burwell?

A. I have a subsequent agreement with Mr. Nisley with reference to his interest in the Mesa Vanadium, where it was reduced.

(Testimony of Charles M. Holmes.)

Q. All right. And do you have any further documents that relate to any transactions with the United States Vanadium Corporation?

A. I don't think so. I have various correspondence along in 1942 and 1943 where we were disposing of the remaining [1800] assets of Mesa Vanadium Company.

Q. With the United States Vanadium Corporation?

A. No, with other parties. In other words, they had never taken it over.

Q. You had no further correspondence then with the United States Vanadium Corporation or with Mr. Burwell, is that correct?

A. It is possible that I had some correspondence in connection with this contract.

Q. Yes?

A. I did notice possibly a letter to Mr. Haldane.

Q. May I have those Haldane letters, please? You have them there with you, I take it.

A. If I can find them.

Q. Do you have there any memoranda of conversations with United States Vanadium employees, sales letters? A. Let me look.

Q. Incidentally, I want to be sure the record is clear on this subject. You are not an attorney for the United States Vanadium Company, are you? A. No.

Q. I am not trying to ask for privileged communications?

A. No, I am not and have never been.

(Testimony of Charles M. Holmes.)

Q. You did not act as attorney for the United States Vanadium Company or any of its affiliated companies at that [1801] time?

A. That is right.

Q. You were acting for the other folks?

A. That is right.

Q. And you were one of the owners. I want to make it clear, sir; I am not asking you for any privileged communications.

The Court: Are there any privileged communications in this matter?

Mr. Alioto: There appear to be some privileged questions. I don't know about communications.

The Court: It seems to me we have gone into all the private papers and correspondence that is available.

Mr. Alioto: That is, all after January 1st, 1938, your Honor. I notice here three letters with reference to payments under the McKee contract.

Q. And doesn't all of that correspondence relate to the operation of that Mesa Vanadium Company? A. Not all of it, no.

Q. Does it relate to some other matter that is not connected in any way with the Mesa Vanadium Company?

A. Of course, it is primarily with reference to the operation of the company. We had some mining claims that were owned, that was owned, I think, by Mesa Mining Company, we called it, that had no connection with this transaction. [1802]

Q. Isn't that a letter from Mr. Haldane there

(Testimony of Charles M. Holmes.)

at the top that you are looking at, right where your thumb is? Isn't that a letter from Mr. Haldane? No, just at the point where you were. He has a rather unique signature. A. Yes.

Q. May we have that?

A. That pertains to the McKee contract on the ore.

Q. He makes a reference to a Burwell memorandum here. I take it you have that there, Mr. Holmes, Mr. Burwell's memorandum.

A. I think I did see that some place here. No, I can't put my fingers on it right now.

Q. Didn't you read that memorandum of Mr. Burwell before coming here, sir?

A. Here it is.

Q. Thank you. Is that signed by Mr. Burwell?

A. No. All I know, it is a copy of Burwell's memorandum and that is in pencil up there.

Q. Whose handwriting is that in pencil?

A. Well, sir, I don't know. It isn't mine. That pertained to the 60-day option on the Mesa Vanadium Mill. [1803]

Q. This appears to be incomplete, sir. If you will notice, the second page starts a certain numbering of paragraphs with "1" and then it stops at the end. Don't you have a complete memorandum?

A. That is all I have.

Q. Don't you have any production records in that folder relating to what you produced at that company, sir? A. What we did, what?

Q. Any production records or experimental rec-

(Testimony of Charles M. Holmes.)

ords with respect to the amount of red cake you produced there. A. No.

Q. In other words——

A. That wasn't in my field and I wasn't interested in that.

Q. Would it be correct to say, Mr. Holmes, that there is nothing else in the folder that you have on your lap that relates in any way to the Mesa Vanadium Company?

A. Oh, I wouldn't go that far. Now, there's——

Q. What else is there?

A. There's a lot of correspondence that covers four years. See, we had the agreement with the U. S. V. relative to the McKee claim. We, as I recall, made some kind of a deal, assigned our lease, and got an over-riding royalty.

Q. That was a deal under which you got all your money back, wasn't it, Mr. Holmes? [1804]

A. Well, a part of the money, on that deal, but then they stockpiled the ore at the mill. See, we had a scale there, we had houses——

Q. Would you mind giving me that correspondence also?

A. Well, I would have to go through this. That's going to take a little time.

The Court: How is that material?

Mr. Alioto: Well, we think it is material, if your Honor please.

If your Honor wants a statement on it, we think that the United States Vanadium Company at this time—and your Honor recalls the testimony of Mr.

(Testimony of Charles M. Holmes.)

Burwell about this Mesa Vanadium Company—simply made a deal with some of the businessmen involved to give them back their money through the indirect form of an over-riding ore royalty, and thereafter succeeded in keeping the place closed down.

The Court: Here's the witness, who was one of the owners of that, he has given you the history of that and told you the facts.

Mr. Alioto: Well, he hasn't told us all of the facts. I would like to cross-examine him on the facts, on the basis of the correspondence, if your Honor please.

The Court: Go ahead and cross-examine him.

Mr. Alioto: Your Honor recalls that just yesterday we had a witness from Apex that told your Honor, [1805] in direct response to your Honor's question, that in December of 1941 he had raw materials coming out of his ears and——

Mr. Archer: What's that got to do with this witness?

Mr. Alioto: Yet he got a letter in his suitcase which proved that he told the government he lacked them. That is why I want to cross-examine these witnesses of the defendants.

The Court: Just a minute now——

Mr. Holland: He didn't tell the government that, anyway, in that letter. You misread the letter.

Mr. Alioto: You read the letter.

The Court: Anybody can tell us that his ears

(Testimony of Charles M. Holmes.)

weren't big enough to hold a great deal of ore, and so that didn't amount to anything.

Mr. Alioto: Well, may we have the correspondence on this over-riding royalty?

The Court: If you have any correspondence now—not your private correspondence——

Mr. Alioto: I don't want your private correspondence.

The Court: Don't get your grocery bills in.

Mr. Alioto: We don't want that. All we like are some over-riding ore payments made to you by U. S. Vanadium Company and any figures on production or red cake. Do you [1806] have the McKee contract providing for these over-riding royalties?

A. Let's see, let's see—let me see that agreement I gave you—see if this is a duplicate of it?

Q. Which one is that?

A. What is the date of that?

Q. What?

A. What is the date of your agreement there?

Q. This appears to be a duplicate. Is it signed, sir? A. Not signed by the U.S.V.

Q. Well, it is signed by you folks, isn't it?

A. Yes. That's a copy of that.

Q. All right.

Now, as part of your arrangement with the United States Vanadium Corporation, did you folks agree to go out of this business? A. Certainly not.

Q. Well—— A. They never asked us to.

(Testimony of Charles M. Holmes.)

Q. Do you have the McKee agreement with you? May I have that, sir?

A. That's with the over-riding royalty on the ore?

Q. The one where you got an over-riding royalty that paid you back your investment in this company, as I understand it.

A. Well, there was nothing mentioned about paying back [1807] the investment.

Q. That was the idea?

A. That was the ultimate result. We didn't know whether we were going to get a hundred dollars out of that deal or ten thousand, you know.

Q. Wasn't it the idea that you were going to get your investment money back by this means, sir?

A. No, sir, certainly not. We were of course hoping to salvage everything we could.

Mr. Alioto: Perhaps the witness can go through this file over the noon hour, if your Honor please.

The Court: His plane leaves at 1:00 o'clock, doesn't it?

A. Leaves at 1:00 o'clock.

Are you sure that contract doesn't mention the McKee claim (referring to document in counsel's hand)? Look it over. It seems like——

Q. (By Mr. Alioto): Well, Mr. Holmes, you brought this contract to San Francisco, this bundle of documents to San Francisco, for a reason, I take it?

A. No, sir. I left in a hurry and I stuck it in—

(Testimony of Charles M. Holmes.)

I stuck the file in here so as to refresh my memory as to what the transaction was.

Q. You got to read that whole file, didn't you, in connection with your examination this morning?

A. I read it a couple of days ago, yes.

Q. Would you have any objection to our seeing the file, sir.

A. Well, I don't think that, until I go over it and see for sure what is in here, that I would want to turn over my personal file.

Q. Well, do you want to have an opportunity to go over it then more leisurely?

The Court: Well, it looks like you will not be able to get away then at 1:00 o'clock, Mr. Holmes.

We will recess at this time until 2:00 o'clock. And in the meantime you can look over these papers. If you find any papers in there now that have anything to do with this transaction, you can bring them out. Your private correspondence is not competent.

(Whereupon an adjournment was had until 2:00 o'clock P.M. this day.) [1809]

June 18, 1958—2:00 O'Clock P.M.

CHARLES M. HOLMES

resumed the stand, and having been previously duly sworn, testified further as follows:

Cross Examination—(Continued)

Q. (By Mr. Alioto): Mr. Holmes, you had an opportunity during the noon hour to review your

(Testimony of Charles M. Holmes.)

file and you have handed us certain documents that relate to the Mesa Vanadium Company, is that correct? A. That is correct.

Q. Had you now handed us all the documents of which you know from your inspection that relate to the Mesa Vanadium Company and the transactions on the McKee claims?

A. Those are all. There were a few duplicates, and so forth, but I think you have copies of everything.

Q. So far as you know, then, we have everything from your files that relate to these two things, the Mesa Vanadium Company and the McKee claims? A. I think so.

Q. And all your dealings with the United States Vanadium Company?

A. So far as I know, yes.

Q. Before we get to the documents, let us see if we can't get a clear understanding of what this situation was. [1810] The Mesa Vanadium Corporation operated the mill at Mesa: that is correct, isn't it?

A. At Disappointment Valley or Cedar, yes.

Q. Disappointment Valley, or Cedar, all right.

A. Yes.

Q. How do the McKee claims figure in this picture? Just give us a little of the history of that, Mr. Holmes.

A. Well, at the time we started a mill, we got a lease on what is known as the McKee claims.

(Testimony of Charles M. Holmes.)

Q. Were those claims that were tributary to the mill at Disappointment Valley? A. Yes.

Q. Who was it who got the lease on the McKee claims? Was it the Mesa Vanadium Corporation?

A. Mesa Vanadium, or it might have been—it could possibly have been in the name of one of the incorporators, I don't recall, but it was for the benefit of the Mesa Vanadium Company.

Q. In other words, the Mesa Vanadium Company was the actual party in interest so far as those McKee claims were concerned?

A. That is right.

Q. Basically that was the transaction under which you were given the right by McKee, who was the owner of the claims, to mine those claims?

A. Yes.

Q. In consideration for paying some kind of a royalty to McKee? A. Yes.

Q. Is that the situation?

Now, there came a time when you had a certain negotiation with Blair Burwell of the United States Vanadium Company, is that correct?

A. That is right.

Q. And as a result of this negotiation you made a contract under the terms of which the United States Vanadium Company was permitted to take over the mill itself, is that right?

A. They got a 60-day option, yes, to experiment with the process.

Q. Now, then, they were in there for approximately 60 days, were they?

(Testimony of Charles M. Holmes.)

A. Something like that, yes.

Q. Did they ever operate the plant itself?

A. No.

Q. At the time of your negotiations with Mr. Blair Burwell, did he tell you that they would go in and make this plant work? A. No.

Q. What did he tell you he would do?

A. They said they wanted to experiment with a plant to see whether or not that process was practical and feasible. [1812]

Q. In any event, there came a time when you made an arrangement with United States Vanadium Company that they would pay the stockholders of the Mesa Vanadium Company an amount of money in connection with the McKee claims, is that correct? A. That is correct.

Q. Now, just tell us in your own words what that situation was about, how it developed and how much money you got out of it.

The Court: How did it begin?

A. It began when we went busted on the Mesa Vanadium mill. We had lost all our money. Simpson and Claybaugh had gone in there on an agreement, of which we have a copy——

Q. (By Mr. Alioto): Yes?

A. Whereby they agreed in exchange for $8,000 worth of stock, to increase the capacity of the mill about 16 tons a day.

Q. What was it before the agreement?

A. Well, it wasn't anything. We hadn't gotten

(Testimony of Charles M. Holmes.)

in production except in an experimental way. We had not sold any red cake.

Q. Yes?

A. Well, they operated that, I don't recall, possibly ten days or two weeks, at the end of which time they decided to sell their red cake and the U.S.V. was willing to buy it. [1813] And they sold that red cake, and as a net result of that sale in their operations they were losing around $500 a day.

Q. Yes.

A. So they refused to proceed with the mill. They threw the thing up.

Q. Yes?

A. So we were all sitting there with a number of debts and not able to operate the mill, and we contacted the U.S.V. to see whether or not we could work anything out on our lease.

Q. Yes?

A. And this resulted in that deal whereby they took over the option to see what they could do with this process. It would have a value with small outlying claims. Theoretically, you could build one of these little roasters for around four or five hundred dollars, and for claims that were in the outlying districts, assuming that it was practical, it would be worthwhile on a small scale operation. That, I understand, is why they were interested, and in part of this deal——

The Court: Did you contact them or did they contact you in the beginning?

(Testimony of Charles M. Holmes.)

The Witness: Well, we contacted them. And as part of the deal, when we got to negotiating, they were interested in, of course, stockpiling some more. We had a central location and we did have a few miners that we had worked out deals [1814] with. We had a scale, we had housing, we had water, and so they made a deal whereby they used our mill as a place to stockpile ore.

Q. (By Mr. Alioto): Was this after the 60-day period?

A. It was worked out about the same time. I think that extended possibly over four months or maybe five.

Q. Was that deal the subject of a contract between you, setting you up as a kind of ore station?

A. I think that is incorporated in some of those agreements that you have there.

Q. What about the McKee deal?

A. Then on the McKee claims, they gave us two and a half per cent over-riding royalty on the ore that would be mined from the McKee claims. I believe that was it.

Q. Was it two and a half cents, or five cents a pound? A. It could have been five cents.

Q. (By The Court): Then whatever income you got, did it come from the royalties on this McKee lease?

A. It came from the royalties on the McKee lease and from the right to stockpile. That was the only income that we got. There was no income from the mill at all.

(Testimony of Charles M. Holmes.)

Q. (By Mr. Alioto): And how much was that income?

A. Well, sir, that was 19 years ago, and I would just have to guess that it might have been around ten to fifteen thousand dollars. [1815]

Q. In any event, it was just about the amount of money that you folks put into the venture, into the Mesa venture, wasn't it?

A. Well, we put in somewhat more than that, but it helped.

Q. It covered it almost a hundred per cent, didn't it?

A. I just don't recall. I kind of believe we put in $22,000 in the venture, if I am not mistaken.

Q. Let us see if we can't get this McKee deal understood.

McKee originally owned the claims, didn't he?

Mr. Holland: Mr. Alioto, would you mind using the other side of the blackboard and leaving those figures on?

Mr. Alioto: No, not at all. The figures we had on were these (writing).

Q. McKee was the man who owned the claims and leased them to your group, is that correct?

A. That is correct.

Q. Now, you agreed to mine them?

A. No, no, we didn't mine them. I don't recall whether McKee did the mining or the U.S.V., right now.

Q. Well, originally, before the U.S.V. got into

(Testimony of Charles M. Holmes.)

the picture, is what I am talking about at the moment. A. I am not——

Q. (By the Court): Well, you got your lease from McKee, didn't you?

A. McKee, yes. I don't know who was to mine those, [1816] whether it was McKee — we didn't mine them.

Q. (By Mr. Alioto): How was McKee being paid or compensated for the fact that he gave you a lease? What was his deal?

A. He was getting so much per ton.

Q. How much was it, do you recall?

A. No, sir, I do not. It was on a sliding scale, depending on the V_2O_5 content.

Q. He was getting so much per ton for the ore that was mined on the property? A. Yes.

Q. Originally that ore was to be processed in the mill; that was the idea of it, wasn't it?

A. That was the idea, yes.

Q. When you finally started negotiating with Mr. Burwell, Mr. Burwell agreed to pay you five cents per pound of V_2O_5 over and above any payments to McKee?

A. That is right. It is either two and a half or five, I don't recall.

Q. We are talking about cents. It is either five cents or two and a half cents, is that what you are saying? A. Per pound, yes.

Q. I think the contract shows that exactly, and I think it will come out to that five cents. The price

(Testimony of Charles M. Holmes.)

of ore at that time was 21 cents per pound of V_2O_5 for two per cent ore, [1817] wasn't it?

A. I don't remember, something like that.

Q. So that U.S.V. agreed to pay you approximately 25 per cent over that price in connection with these McKee claims?

Mr. Archer: Is that five cents a pound or five cents a ton?

Q. (By Mr. Alioto): What do you recall it as, five cents a pound or five cents a ton?

A. Five cents a pound.

Q. Five cents a pound, sure.

Did you negotiate this transaction with Mr. Burwell?

A. Well, I was a party to it, yes.

Q. Were you the principal negotiator?

A. I wouldn't say that. We had a board of directors.

Q. In any event, this five cents a pound went to the Mesa Vanadium Company, is that correct, the corporation itself? A. That is correct.

Q. And the corporation reimbursed those stockholders who put up the money?

A. Well, we paid some debts that we had.

Q. Was there any discussion as to why the United States Vanadium Corporation was prepared to pay five cents per pound more than the market price to you folks for ore? Was there a shortage of ore at that time?

A. Well, that was a very favorable lease and

(Testimony of Charles M. Holmes.)

had fairly [1818] high-grade vanadium, as I recall, and they apparently wanted the ore. I don't know.

Q. Was there a shortage of ore in 1940, a shortage of oxide?

A. I don't know. I don't know.

Q. Do you know the market condition as of 1940? A. No, I do not.

Q. Well, I think we have had enough evidence on the market condition as of that year. Let us see if we can't identify some of these documents you handed me, so we will have a documentary record of this transaction.

First of all, I see you have some accounting records. Will you tell us what these accounting records are? Is that the ore you purchased independently while you were running the mill yourself?

A. No, I think that is probably the ore that the U.S.V. bought and stockpiled at the mill, probably. I am a little hazy about it.

Q. Let us look at it. It talks about—the months are June, July, August, September, at the Mesa mill for 1940, and lists a group of miners from whom the ore was purchased. A. Yes.

Q. Is it your best recollection that those are the amounts of ore that were purchased and stockpiled at the mill? [1819]

A. Probably. I don't recall.

Q. Do you remember how much money you received under the stockpiling arrangement from the United States Vanadium Company?

(Testimony of Charles M. Holmes.)

A. No, sir, it is so long ago that I just have a very unclear recollection.

Q. Was it a flat sum per month, or was it contingent upon how much ore was purchased?

A. It was contingent on the amount of ore.

Q. The first paper we have been looking at is an accounting record entitled "Mesa Mill 1940." On top of that you have the McKee claims, Mesa Mill contract, 1940, the month, the tons, the weight, the amount paid, and the hauling allowance for Uravan delivery. Will you be good enough to tell us what that document refers to, so far as the McKee claims are concerned?

A. Well, that is apparently the amount of ore mined under the McKee contract.

Q. And that is the arrangement under which you folks received the five cents per pound?

A. I think so.

Mr. Alioto: We will offer these documents into evidence, if your Honor please.

Mr. Archer: No objection, your Honor.

Mr. Holland: It is not being offered the Vanadium Corporation of America, is it? [1820]

Mr. Alioto: Not at this moment.

The Court: I do not see the materiality of it, but if you do not object, let it go in.

(The document referred to was thereupon received in evidence and marked Plaintiffs' Exhibit 151.)

Mr. Archer: Mr. Holmes, do you want these back, these records back?

(Testimony of Charles M. Holmes.)

The Witness: Well, I would kind of like to keep them.

Mr. Alioto: We will be very happy to have copies, photostatic copies, made, Mr. Archer, if you would arrange for that, and then we will give them to you.

Q. I show you a copy of a contract, Mr. Holmes, which purports to be between the United States Vanadium Corporation by Mr. Haldane and by the Mesa Vanadium Company by Mr. Van Deren. Would you be good enough to examine that document and then state for the record what it is?

A. That is an agreement between the Mesa Vanadium Company and the United States Vanadium Company dated May 7, 1940, with reference to the option on Mesa Vanadium Mill and the stockpiling of the ore, I believe.

Q. Now then, on the same day, you made your deal with respect to the McKee claim, didn't you, do you recall that? A. Well, I don't recall.

Q. Let me show you this contract now (handing witness). [1821] State whether that refreshes your memory that the deal on the McKee claim for the five-cent over-ride was made at the same time.

A. (Examining): It is possible. I don't have an executed copy of the contract, so I don't know.

Q. At least, the negotiation was at the same time, wasn't it?

A. Apparently there was some negotiations at the same time.

Q. You did finally make the five-cent deal?

(Testimony of Charles M. Holmes.)

A. Yes.

Mr. Alioto: We will offer these contracts, if your Honor please, as the plaintiffs' exhibit next in order.

The Court: How are they material?

Mr. Alioto: They show the relationship, if your Honor please, between the defendant U. S. Vanadium and this company, which, when taken in conjunction with the Burwell testimony that this mill was acquired for the purpose of keeping its production off the market——

The Court: There isn't any proof on that point. You haven't offered any evidence.

Mr. Alioto: Yes. Mr. Burwell testified——

The Court: Yes, he testified, but you have this testimony now, of the man who owned the mill, and he sold this ore — he sold this lease because he thought it was a good deal. [1822]

Mr. Alioto: Yes, but Mr. Burwell bought it because he wanted to keep it off the market.

The Court: Well, I don't know——

Mr. Alioto: He is the man we are concerned with, not this man.

And then when you take Mr. Burwell's testimony with the fact that they got five cents over the market price at a period of time when there was no shortage——

The Court: Did you have an opportunity to sell this to anybody else?

A. Not as far as I know.

(Testimony of Charles M. Holmes.)

The Court: Did you regard it as a good deal, from your standpoint?

A. I thought it was a good deal, yes, good business deal.

The Court: That is why you made the deal?

A. Yes.

Mr. Alioto: It was a good deal, from their standpoint. It was five cents over the market price. But when taken in conjunction with Mr. Burwell's testimony, that he did this to keep this off the independent market, I think the relevancy is very clear.

The Court: No, there is no connection there at all. Mr. Burwell's statement was his conclusion. He stated the policy——

Mr. Alioto: The officer charged with carrying out [1823] that policy, if your Honor please, I submit, is something more than a conclusion——

The Court: No.

Let it be admitted.

Mr. Alioto: We are offering the contracts on that basis.

(Contracts May 7, 1940, Mesa Vanadium and U.S.V. and re McKee claim, received in evidence and marked Plaintiffs' Exhibit No. 152.)

The Court: Was there anything said at the time that you and Mr. Burwell had your conversation, your negotiations, anything said by Burwell as to why he wanted to buy this?

A. Not that I recall, your Honor.

The Court: Was it a valuable lease, the McKee lease?

(Testimony of Charles M. Holmes.)

A. Yes, it was, it was a very good lease.

The Court: Had they operated at a profit, as far as you know?

A. As far as I know, they did, yes.

Q. (By Mr. Alioto): Well, you defaulted——

The Court: Do you know of anyone else that was interested in buying this lease or this mill?

A. We knew of no one else. We did subsequently try to put the mill back in operation, but we couldn't get it financed.

Q. (By Mr. Alioto): How long was "subsequently," how [1824] long after?

A. I don't recall. In 1942 I know that there was some correspondence where we were trying to get the mill put back in operation.

Q. Now, in connection with this valuable lease, you folks defaulted on it, didn't you, and didn't McKee file a notice of default?

A. That's correct. I think we—I think that that was worked out and we finally gave it up because we couldn't use the ore.

Q. Well, if this lease was so valuable, why did you default on it?

A. Because we couldn't sell the ore.

Q. Was there a market for the lease other than to Mr. Burwell at five cents above everything?

A. At what period of time?

Q. At the time you gave—at the time Mr. Burwell offered you the five cents, in May of 1940.

A. Well, we didn't — we didn't try to find any other market. Of course there was a limited market.

(Testimony of Charles M. Holmes.)

Q. Limited to whom?

A. Well, there were not too many vanadium mills operating at that time.

Q. Now, then, you have produced some other documents that relate to a period May of '41 and set forth a series of [1825] purchases. Did this five-cent arrangement continue through 1941? (Handing witness.)

A. (Witness examining): I think there were some limited purchases through the early part of '41.

Q. How long did you continue to get this five-cent deal on the ore, do you recall?

A. I don't recall exactly. As I recall, it was broken off some time in the early part of '41.

Q. Here's a letter you handed us a moment ago, to the United States Vanadium Corporation, it is October of '41 (handing witness).

Does that refresh your memory that it was as late as October of '41 you were getting this five-cent deal?

A. (Witness examining): Well, I write to them in regard to some back payments. Now, we had—as I recall, there were some delinquent payments, and a settlement that we had to work out with them.

Q. Did you write the letter you have in your hand now? A. I wrote that.

Mr. Alioto: We will offer it in evidence. If your Honor please, it is a very short letter, it indicates——

The Court: Let it be admitted.

(Testimony of Charles M. Holmes.)

Mr. Alioto: (Continuing) ——that this deal was in existence at least at this time.

(Letter October 14, 1941, Holmes to Burwell, received in evidence and marked Plaintiffs' Exhibit 153.) [1826]

Mr. Holland: This testimony is all offered against Union Carbide only, I suppose?

Mr. Alioto: Up to this point, yes, sir.

This letter, dated October 14, 1941——

Q. Now, the prior contracts were dated in May of 1940.

On October 14th of 1941 the writer writes to the attention of Mr. Burwell, United States Vanadium Company:

"Gentlemen:

"The Mesa Vanadium Company has asked us to write you in regard to the payments on the McKee contract. No payments have been made for several months, although Mr. Haldane has on numerous occasions promised that he would take care of them within a few days. We understand that Mr. Haldane is now absent, but we trust that you will take care of these payments, without waiting for his return. It was our understanding that the payments would be made monthly."

Do you recall the months that you were asking for payment in October of '41? Do you know what months you were referring to?

A. No, I don't. That's too long ago.

Q. I think you may have another letter that makes that clear.

(Testimony of Charles M. Holmes.)

A. I think you will find all of the statements in the file there. [1827]

Q. Doesn't this letter indicate—I show you a letter dated October 11, 1941—doesn't this letter indicate that at least up to August of 1941 you were receiving this five-cent deal? A. That's true.

Q. In other words, you were receiving payments at least until August of '41? A. Yes.

Q. Now, there is a letter of April 10, 1941, Mr. Holmes (handing witness). Did you write this letter? If you did, will you be good enough to look at it and tell us what new agreements you were talking about in '41 with the United States Vanadium Company?

A. (Examining): I don't have any recollection.

Q. What is the date of that letter?

A. April 10, 1941.

Q. Now, here's a response to that from Mr. Haldane of the United States Vanadium Company (handing witness).

Would you be good enough to look at that and see if that brings back to your memory what kind of a contract you were offering them in April of 1941—that's a year after your first agreement.

A. (Examining): I don't have any recollection of what developed, whether we got together on some deal or the McKee contract was canceled out, I don't—I just don't remember. [1828]

Q. Well, after the McKee contract——

A. Unless there was a contract in the files there after this date.

(Testimony of Charles M. Holmes.)

Q. After the McKee contract, you had some kind of royalty deals on other properties, didn't you? Who were Wallace and Bailey, Duckett and Lloyd, Larson and Gregory? Just take a look at this document marked "Royalty payments for 1941" (handing witness).

A. (Examining.)

Q. Can you tell us what these royalty payments were and can you tell us whether they were in addition to this five-cents over-ride you had on the McKee deal?

A. (Examining): This, as I said before, was apparently ore that was stockpiled at the mill.

Q. And for which you were receiving a royalty payment?

A. For which we were receiving a royalty payment.

Q. Does that record set forth the names of the persons, the names of the claims involved, from which you were receiving a royalty payment?

A. It sets forth the names.

Q. Can you work out from the names and the amounts set out there the amount of what the royalty payment was or the rate of payments?

A. Yes, that could be done.

Q. Well, don't do it now—— [1829]

The Court: Did you get the ore from these various persons that counsel has named? Or were they persons from whom the corporation got the ore that they stockpiled with you?

(Testimony of Charles M. Holmes.)

A. The United States Vanadium got this ore and stockpiled it at our mill.

The Court: You don't know where they got it?

A. I don't know where they got it.

Mr. Alioto: Now, along that line of questioning raised by the Court, you didn't have anything to do with the purchase of this ore, did you?

A. No.

Q. In other words, that was all done by personalities of the United States Vanadium Company?

A. That's right.

Q. And then you received the royalties, however, as indicated on that list, didn't you?

The Court: No. Now, that isn't his testimony. His testimony is that they received a certain amount for permitting them to stockpile it on their property.

Mr. Alioto: I am asking him, if your Honor please——

The Court: Yes, I know you are.

Mr. Alioto: I want to develop it. Some of this went to Uravan. That is what I am getting at here.

The Court: Let him do the testifying. [1830]

Mr. Alioto: I am asking leading questions, because I perceive on cross-examination——

The Court: Go ahead and ask your questions.

Q. Do you know where this came from, of your own knowledge? A. No, I don't.

Q. And was that all ore that was purchased there by the vanadium company for the purpose of stockpiling on your property?

(Testimony of Charles M. Holmes.)

A. That's right. They paid us five cents a pound for stockpiling it, using our facilities at the mill.

Q. (By Mr. Alioto): That was five cents a pound? A. That's right.

Q. And that ore was worth 21 cents—being purchased at 21 cents, wasn't it?

A. I don't know.

Q. Don't you know that 21 cents was the market price for ore in 1940?

A. Oh, it varied between '39 and '44, it fluctuated, so I don't know at any particular time.

Q. Was the McKee ore stored at this plant?

A. I don't know.

Q. Well, let me show you a document which is—— A. I don't know.

Q. (Continuing) ——No. 151 in evidence.

This is the line I was pursuing, if your Honor please. [1831]

Doesn't that indicate that the McKee ore was taken to Uravan and not stored at your plant?

(Handing witness.)

A. (Examining) That's possible. I never said it was.

Q. Well, the Court indicated that it might be. But you look at that and you say it is possible.

From that record isn't it perfectly clear that that is what happened? Doesn't it say "Hauling to Uravan"?

A. It probably was hauled to Uravan.

Q. All right. Now then, how far was Uravan from the Mesa plant? A. Well, let's see.

(Testimony of Charles M. Holmes.)

Q. Where was the Mesa plant? Point that out.

A. It's here by Cedar.

Q. In the Slick Rock area? A. Yes.

Q. In other words, it had to go through Bowl Canyon area up to Uravan, is that right?

A. Oh, I would guess that is 30, 35 miles or so.

Q. What kind of roads were there in 1940?

A. Pretty good roads.

Mr. Alioto: We will offer these other royalty payments made in 1941, if your Honor please.

The Court: I would like to have cleared up: Now, they took this ore from McKee's lease to a mill, did they?

A. Well, I don't know, personally. [1832]

Q. (By The Court): If they took it to a mill was there any other mill near there, closer than their mill?

A. Yes, the V.C.A. mill would have been closer.

Q. What?

A. The Vanadium Corporation of America mill would have been closer.

Q. But the ore that they stored or stockpiled on your premises there, you don't know where they got it?

A. I don't know where they got it.

Q. (By Mr. Alioto): These records that you had indicate where they got some of it, don't they?

A. Well, this is just a bunch of names. I don't know these people, where their claims are, or anything else.

(Testimony of Charles M. Holmes.)

Q. But those are the persons from whom U.S.V. secured the ore, some of which was stored at Mesa, is that the fact?

A. I have no personal knowledge except that this was in the file. That is all I know about it.

Mr. Alioto: We will offer this in evidence, if your Honor please.

Mr. Archer: I do not see that it is material, but I have no objection if counsel wants to put it in.

The Court: It is not material at all. It just clutters up the record. It doesn't amount to anything. It [1833] doesn't prove anything.

Mr. Alioto: I think when taken in conjunction with Mr. Burwell's testimony it proves a good deal, and we would like to have the opportunity to argue that to the jury at the appropriate time.

The Court: Yes, I will give you the opportunity.

Q. (By Mr. Alioto): Finally, on this McKee lease, you received a notice of default, or forfeiture, in December of 1940, didn't you? I will show you that notice of forfeiture. A. That is correct.

Q. In other words, you defaulted on that lease in December, 1940, approximately five or six months after you made the contract with the United States Vanadium Company, under the terms of which they were to pay you a five-cent override?

A. Well, we received this notice. As I recall, we worked out something with McKee.

Mr. Alioto: We will offer this notice of default, if your Honor please.

Q. (By the Court): Did you forfeit the lease?

(Testimony of Charles M. Holmes.)

A. No; we renegotiated. To the best of my recollection it was renegotiated. But I don't remember the details. It is too long ago. [1834]

Mr. Alioto: We are offering this notice of default, if your Honor please, in December, 1940, particularly in view of this five-cent payment.

The Court: Very well. If there is no objection it can go in with the rest.

Mr. Archer: I have no objection.

(The notice referred to was thereupon marked Plaintiffs' Exhibit No. 154 in evidence.)

Q. (By Mr. Alioto): There is just one other subject matter, Mr. Holmes. I have not had a chance to handle all these documents since I received them at two o'clock. If there is any document that you have in mind that should be in this record covering the matters I have covered, just mention it and we will put it in.

You mentioned on your direct examination when Mr. Archer was interrogating you that you contacted a man named Tellum in Denver, Colorado.

A. That is right.

Q. Tellum was an engineer that had previously worked for the Vanadium Corporation of America, or at least had been employed by the Vanadium Corporation of America in connection with the Peruvian deposits of that company?

A. That is correct.

Q. He was a well known mining engineer, wasn't he? A. Yes. [1835]

(Testimony of Charles M. Holmes.)

Q. He told you the process of Nisley would work, didn't he? A. That is correct.

Mr. Alioto: We have no further questions.

Redirect Examination

Q. (By Mr. Archer): Mr. Tellum made his report before Claybough and Simpson took over, did he not? A. That is right, yes.

Q. And Claybough-Simpson found out it didn't work, didn't they? A. That is right.

Q. Just so that it is clear, after Claybough-Simpson ceased operating the mill, Mr. Burwell got an option to purchase the mill which he did not exercise, isn't that correct?

A. How is that?

Q. He got an option—United States Vanadium got an option to purchase the mill, the actual physical mill facilities?

A. That is correct. It is really an option to operate it and to pay us so much per pound royalty.

Q. And they never exercised the option?

A. They never exercised that.

Q. But after that they paid you royalties, one for ore delivered under the McKee contract, and the other for ore which they stockpiled and weighed at the remaining facilities [1836] in that location?

A. Yes.

Q. When we refer here to a five-cent per pound price, we really mean—this gets quite complicated—five cents a pound for 75 percent of the vanadium

(Testimony of Charles M. Holmes.)

pentoxide, which may be three percent of the ore delivered, is that correct?

A. Yes. It would be a little more than three percent, but they figured 75 percent—it would be 75 percent, I guess, of five percent.

Q. Then the ore is running about two or three percent. In other words, there is two or three percent vanadium oxide in the ore?

A. That is right. Three percent is a pretty good grade of vanadium ore.

Q. That would be high?

A. So that would be a very small amount per ton.

Q. (By the Court): What finally became of the mill?

A. The mill—we sold the crusher for $500, and the correspondence will show that I wrote up to the County Treasurer and told him that we didn't want to pay the delinquent taxes, and it was just abandoned.

Q. You got nothing out of it?

A. We got nothing out of it except $500, but that was in 1943. [1837]

Q. (By Mr. Archer): I believe that the ore purchase station there was established by U.S.V. in the spring of 1940? A. Yes.

Q. And that was just about the time that Vanadium Corporation of America commenced their mill at Naturita, is it not, do you recall?

A. I just don't recall.

Q. You do not recall that date?

(Testimony of Charles M. Holmes.)

A. No, I do not.

Q. But this ore purchase station of U.S.V. was between the U.S.V. plant at Uravan and the Vanadium Corporation of America plant at Naturita?

A. That is right.

Mr. Archer: I have no further questions.

Recross Examination

Q. (By Mr. Alioto): Just with respect to the amount, you were to get five cents a pound on about 45 pounds of V_2O_5 per ton, isn't that the way it worked out?

A. That is right. It contained two percent vanadium. That would be 40 pounds in a ton. And 75 percent of that would be how much? 30. And we would get five cents of that thirty.

Q. Between $1.15 and $2.00 a ton. [1838]

Now then, actually, on February 6, 1941, you made an offer to Mr. McKee's attorney to enter into a new contract with a royalty of $3.00 a ton, or two percent on—two percent or better, and $1.50 or better on all ore under two percent. That is correct, is it not? A. That is probably correct, yes.

Q. (By the Court): In other words, you were getting on your five-cent deal almost the same amount of money you were offering McKee in 1941, weren't you?

A. Well, that just speaks for itself there, yes.

Mr. Alioto: O. K. No further questions.

The Court: Stand aside.

(Witness excused.)

Mr. Alioto: If your Honor please, we had other correspondence which we just haven't had a chance to look at, and we would like an opportunity to hold onto it until we can look at it, particularly some that apparently comes from the United States Vanadium Company itself, and we would like a chance to do that. We are not asking that Mr. Holmes be kept here for any purpose; simply a chance to see the other correspondence he has handed us. We don't want to hold him here unnecessarily.

The Court: The question is whether or not you can take a private file that way and see whether or not you want [1839] to use it independent of the witness.

Mr. Alioto: Let us put it this way: If it is necessary to recall the witness, we will be glad to pay the expense of recalling him. We do not think it will be necessary. But at the same time, that is correspondence——

The Court: That is his private property, and I wouldn't want anything to happen to it.

Mr. Alioto: May we put it in the custody of the clerk, then, and have the clerk make photostats at our expense? For example, there is a letter from the United States——

The Court: You can examine it, and if you want anything like that done——

Mr. Alioto: Thank you, your Honor.

The Court: Proceed.

Mr. Alioto: We will do that.

You go ahead, Mr. Archer.

Mr. Archer: When do you plan to finish?

Mr. Alioto: We are doing it right now. Can we do it any faster?

Mr. Archer: I am asking you when. We are not asking you to hurry.

Mr. Alioto: We are doing it right now.

Mr. Archer: As my next witness I will call Mr. Du Tot. [1840]

STUART C. DU TOT

called as a witness on behalf of the defendants, and having been previously duly sworn, testified as follows:

Direct Examination

Q. (By Mr. Archer): Will you state your name and your address for the record?

A. My name is Stuart C. Du Tot. I live at 109 Holly Court, Maitland, Florida.

Q. By whom are you employed, Mr. Du Tot?

A. I am retired.

Q. Who was your last employer?

A. My last employer was the Pittsburgh Metallurgical Company.

Q. My questions—you probably heard my questions of other witnesses, and my questions will be limited to the period 1938 through 1949, if I forget to state that.

Were you employed by the Electro Metallurgical Sales Company during the period 1938 to 1949?

A. I was.

Q. What position did you hold in 1940?

A. I was district manager, or division manager

(Testimony of Stuart C. Du Tot.)

of the Electro Metallurgical Sales, located at Pittsburgh.

Q. Mr. Burwell has testified that in 1940, after meeting with some people at the Vitro Manufacturing Company, he had a [1841] meeting with you in Pittsburgh. Do you recall such a meeting?

A. Yes, I do.

Q. What was discussed at that meeting?

A. Well, we naturally discussed the matter of vanadium, and I presume discussed the things he may have said at Vitro. I don't recall specifically what was discussed.

Q. Mr. Burwell has testified that he took you to task at that time for not selling vanadium that you said Vanadium Corporation of America was selling to Vitro, and that you were not calling on Vanadium Corporation of America customers. Did you make either of those statements to Mr. Burwell at that time? A. I did not.

Q. Had you called on the Vitro Manufacturing Company prior to that time? A. Yes, I had.

Q. And had your associates, the people working with you, called on Vitro prior to that time?

A. They had called there, also, yes, sir.

Q. Mr. Burwell also testified that a man by the name of Ford was present at this meeting. Did you know a man named Ford in the Electro Metallurgical Company? A. Yes, sir.

Q. What was his full name?

A. Thomas C. Ford. [1842]

Q. Was he in Pittsburgh in 1940?

(Testimony of Stuart C. Du Tot.)

A. No, sir, he was not.

Q. Where was he at that time, do you know?

A. He was in Chicago.

Q. Mr. Burwell has also testified to a meeting among yourselves, Mr. Ford, and Mr. Sullivan in Pittsburgh in July of 1946. Do you recall that meeting? A. Yes, sir, I do.

Q. Where did it take place?

A. It took place in my office in the Oliver Building. Later on we went to the Duquesne Club for luncheon.

Q. Do you recall what was discussed at that meeting?

A. We discussed the matter of vanadium and tungsten.

Q. I believe Mr. Burwell testified that you also discussed drill rods. A. That is right.

Q. At that time did you arrange a meeting for Mr. Burwell with the president of the Crucible Steel Company? A. I did not, sir.

Q. Did you arrange a meeting for him with anybody in the Crucible Steel Company?

A. I arranged a meeting for him with Mr. A. W. Taylor, who was then director of purchases, and Mr. Taylor, in turn, referred us to Mr. John Billingsley, who had charge of one of Crucible Steel's divisions. [1843]

Q. Are either Mr. Taylor or Mr. Billingsley now alive?

A. Mr. Taylor is deceased. Mr. Billingsley is still living, or was the last I knew.

VOLUME V

TRANSCRIPT OF RECORD

Supreme Court of the United States

OCTOBER TERM, 1961

No. 304

CONTINENTAL ORE COMPANY, ET AL.,
PETITIONERS,

vs.

UNION CARBIDE AND CARBON
CORPORATION, ET AL.

ON WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

PETITION FOR CERTIORARI FILED AUGUST 11, 1961
CERTIORARI GRANTED OCTOBER 23, 1961

No. 16149

United States
Court of Appeals
for the Ninth Circuit

CONTINENTAL ORE COMPANY, a Partnership, and HENRY J. LEIR, ERNA D. LEIR, LINA SCHLOSS, as Individuals and as partners under the trade name and style of CONTINENTAL ORE COMPANY,

Appellants,

vs.

UNION CARBIDE AND CARBON CORPORATION; UNITED STATES VANADIUM CORPORATION; ELECTRO METALLURGICAL COMPANY; ELECTRA METALLURGICAL SALES CORPORATION; ELECTRO METALLURGICAL COMPANY OF CANADA, LIMITED; VANADIUM CORPORATION OF AMERICA,

Appellees.

Transcript of Record

In Seven Volumes

VOLUME V.

(Pages 1665 to 2068, inclusive)

Appeal from the United States District Court
for the Northern District of California,
Southern Division

(Testimony of Stuart C. Du Tot.)

Q. At that time did you tell Mr. Burwell not to mention vanadium to Crucible Steel as a favor to you? A. I did not.

Q. At that time, or at any other time, did you state to Mr. Burwell that Crucible had been getting their vanadium from Vanadium Corporation of America, and that you had been instructed by Mr. Remmers and Mr. Priestley not to approach customers of the Vanadium Corporation of America? A. I made no such statement.

Q. Did you and Mr. Burwell subsequently go to the Crucible Steel Company? A. Yes, we did.

Q. What occurred there?

A. I took those fellows down to see Mr. Taylor, who was the director of purchases, and prior to going down there Mr. Burwell had stated that he was interested in buying some drill rods for his mining operations, and he would like to go down and talk to Crucible Company about this, with the idea, of course, of helping our situation on sales of ferro-vanadium and ferro-tungsten.

Mr. Taylor referred us to Mr. Billingsley, and in Mr. Billingsley's office it developed that Mr. Burwell was buying [1844] this drill rod for some jobbing outfit in Denver. And Mr. Billingsley said that was perfectly all right as they were supplying this jobber, so indirectly Crucible Steel Company was getting the drill rod business. And that about ended it as far as the drill rod went. Everybody was satisfied.

(Testimony of Stuart C. Du Tot.)

Q. Did you discuss vanadium at the Crucible Steel Company at that time?

A. We touched on it, yes.

Q. Were you instructed during the period of time that is involved here by either Mr. Remmers or Mr. Priestley, or any of them, not to solicit Crucible Steel Company, or any other customer of Vanadium Corporation of America?

A. I never had such instructions, no, sir.

Q. Did you ever attempt to sell vanadium to Crucible Steel Company? A. I certainly did.

Q. Did the other people in your office under you attempt to sell them?

A. They certainly did.

Q. Were you successful?

A. We were not successful.

Mr. Archer: I have no further questions of Mr. Du Tot.

Cross-Examination

Q. (By Mr. Alioto): Do you know whether the Crucible Company had a [1845] requirements contract with Vanadium Corporation of America?

A. I don't know, sir.

Q. Or any other contract with the Vanadium Corporation of America?

A. I don't know, sir.

Q. Who was the director of purchases for Crucible? A. Mr. A. W. Taylor, at that time.

Q. Was there a Billinger, or Pilsenger connected with that company?

(Testimony of Stuart C. Du Tot.)

A. Filsinger. Well, what year are you speaking of, now?

Q. Any year. Does that name ring a chord?

A. Mr. Filsinger.

Q. Filsinger?

A. Filsinger; F-i-l-s-i-n-g-e-r.

Q. He was the director of purchases for Crucible? A. That's right.

Q. Did he have a son working for one of the Vanadium companies? A. I believe he does.

Q. Working for which company?

A. Vanadium Corporation of America.

Q. Did they have a contract, requirements contract, with them? A. I don't know.

Q. Did you have a contract with the Vitro Company, one of your annual contracts, in 1940? [1846]

A. I think perhaps we did.

Q. Did the Vanadium Corporation have one, too?

A. I don't know.

Q. Was yours a split requirements contract?

A. It may be—it may have been. I don't recall. It may have been purely a requirement contract, if we had one.

Q. But you have no recollection on that?

A. I have no recollection of how it was.

Q. Mr. Du Tot, when did you start with the Union Carbide Company or any of its affiliates?

A. You mean start my employment?

Q. Yes. A. In 1917.

Q. That was the time the Union Carbide was formed, incidentally?

(Testimony of Stuart C. Du Tot.)

A. It was just about that time.

Q. In other words, it was formed during the First World War? A. That's right.

Q. And were you working with the company during the thirties? A. Yes, sir.

Q. Did you know, during the thirties, where the Vanadium Corporation of America was securing its supply of raw materials? [1847]

Mr. Archer: Well, I object.

Mr. Alioto: Well, from '38 on.

The Court: Objection sustained. You can ask after '38.

Q. (By Mr. Alioto): After January 1, 1938, do you know whether or not your company was selling vanadium oxide to the Vanadium Corporation of America?

A. I would have no knowledge of that, sir.

Q. None at all? A. No.

Q. Didn't you ever read a report prepared by anybody in the Union Carbide organization that referred to that fact? A. No, sir.

Q. Did you know a man named MacQuigg?

A. I knew Mr. MacQuigg.

Q. Was he in the research department of the Union Carbide Company?

A. He was at one time.

Q. Did you do any work with Mr. MacQuigg on the report that related to the relations between the Union Carbide and V.C.A.?

The Witness: Would you repeat that question, please?

(Testimony of Stuart C. Du Tot.)

Mr. Holland: Let's fix the date on this question. What date is he referring to? [1848]

Mr. Alioto: Do you want to read the question, please?

The Court: Read it.

(Question read by the reporter.)

A. No, sir.

Mr. Holland: Fix the date.

Q. (By Mr. Alioto): Did you, at any time after January 1, 1938, see such a report?

A. No, sir.

Q. When was this conversation with Mr. Burwell about which you testified?

Mr. Archer: He testified to two.

Mr. Alioto: Yes.

Q. (By Mr. Alioto): What were the dates of those conversations?

A. I don't know what the dates were. The years, probably 1940 up to 1946.

(Mr. Alioto examining documents.)

Mr. Archer: What you are looking for, Mr. Alioto, is the letter at the end, dated about 1932, and on that ground I object to it.

Mr. Alioto: Well, that's not what I am looking for. But here is what I am looking for. It is in the beginning. [1849]

On Plaintiffs' Exhibit 47 for identification reference is made on page 3 to a S. C. Du Tot in connection with a certain study.

Q. (By Mr. Alioto): Would that by any chance be you?

(Testimony of Stuart C. Du Tot.)

Mr. Holland: If the Court please, he is not supposed to be reading from this document, which would open up the whole period which your Honor has ruled——

The Court: What is the date of that?

Mr. Alioto: I want to ask this witness——

Mr. Holland: 1935.

Mr. Alioto: This is dated 1935, if your Honor please.

Mr. Holland: It is the same document——

Mr. Alioto: I desire to ask the witness whether, in 1940——

The Court: Objection is sustained.

Mr. Alioto: ——he had knowledge——

The Court: Objection sustained.

Q. (By Mr. Alioto): Mr. Du Tot, in 1940, at the time of your conversations with Mr. Burwell—strike that. Let's get that a little clearer.

At the time of your conversations with Mr. Burwell [1850] about which you have testified here on direct examination, did you have knowledge of something that was called the MacQuigg Report?

A. No, sir, I did not.

Mr. Alioto: Well, that takes care of that. That solves the problem for everybody, Judge, in a very easy way, so there was no need to get excited.

The Court: That's encouraging.

Q. (By Mr. Alioto): Did you ever see any of the ferro-vanadium produced by the Apex Smelting Company? A. No, sir.

(Testimony of Stuart C. Du Tot.)

Mr. Alioto: We have no further questions.

Mr. Archer: I have no further questions of this witness.

(Witness excused.)

Mr. Archer: Does your Honor wish to take a recess before I call the next witness?

The Court: We will take a recess.

(Short recess.) [1851]

Mr. Alioto: If your Honor please, I have discussed with Mr. Archer, counsel for the Union Carbide defendants, the letter I wanted to offer through Mr. Remmers, and Mr. Archer has now informed me that he has no objection to the offer without Mr. Remmers on the stand, and so I offer it at this time.

It is dated October 13, 1943, from Mr. Remmers to Mr. Swain, Mr. Pritchard, Mr. Gormely, Mr. Van Fleet and Mr. Price. There are just two short paragraphs that I would like to read from this letter, if your Honor please.

Mr. Archer: I would rather have you read it at some other time.

Mr. Alioto: Fine. I have no objection to doing that, either.

(The document referred to was thereupon received in evidence and marked Plaintiffs' Exhibit No. 155.)

Mr. Archer: Your Honor, as my last witness, I call Mr. Colvin.

WILLIAM H. COLVIN

called as a witness by and on behalf of the defendants Union Carbide, and having been previously duly sworn, testified as follows:

Direct Examination

Q. (By Mr. Archer): Will you state your name and address, please? [1852]

A. William H. Colvin, Sarasota, Florida.

Q. What is your present occupation?

A. I am retired from business responsibilities now.

Q. During 1945 did you hold the position with the Crucible Steel Company?

A. Yes, I was president of Crucible Steel Company of America.

Q. When did you become president of Crucible Steel Company of America?

A. February 14th, 1945.

Q. I have the names of three men mentioned in connection with the Crucible Steel Company: a Mr. Felsinger, Mr. Taylor and a Mr. Billingsley. What were Mr. Felsinger's and Mr. Taylor's capacities?

A. Mr. Felsinger was director of purchases for a good many years and died something like March of 1945. His successor was A. W. Taylor, who became director of purchases.

Billingsley was in the sales department at the time of 1945 and 1946; he was the manager of the Pittsburgh branch of the Crucible Steel Company.

(Testimony of William H. Colvin.)

He was manager of our warehouse there and conducted sales within the area of Pittsburgh.

Q. Is Mr. Taylor still alive?

A. No, Mr. Taylor died in October, 1956, I believe.

Q. During the period commencing with February 14, 1945, when you became president of Crucible Steel Company, until 1949, [1853] did the Crucible Steel Company buy ferro-vanadium?

A. In very large amounts, yes, sir.

Q. What is the Crucible Steel Company's principal line of business?

A. The line for which it is probably best known is tool steel in all forms, shapes, sizes and grades. It is active in stainless steel in all varieties, other than the common grades of carbon steels, all forms of open-hearth electric furnaces, vacuum melted alloy steels.

Q. Is the Crucible Steel Company a large producer of tool steel?

A. I believe it is the largest.

Q. From whom did you buy ferro-vanadium after you became president of the Crucible Steel Company until 1949?

A. If the "you" there means the company, our purchases were substantially from the Vanadium Corporation of America with an occasional lot to Carbide.

Q. Were you ever solicited by anybody from Carbide or Electro Metallurgical Sales for the pur-

(Testimony of William H. Colvin.)

pose of having Crucible Steel Company purchase vanadium products?

A. The "you" there means me personally?

Q. Yes, you personally. A. Yes, sir.

Q. By whom were you solicited?

A. By a man named John Swain, who was the president of [1854] the Sales Company, in charge of those sales for the Union Carbide Division.

Q. When did he first solicit your business?

A. I do not want to be too accurate as to that, but it was very shortly after I had assumed actual responsibilities. That occurred March 1st, and it was some time very shortly after that. It could have been in that same month.

The Court: What year?

A. 1945, sir.

Q. (By Mr. Archer): What was the occasion of this solicitation? Did he call you, or what happened?

A. He telephoned, introduced himself, and told me that he had a matter that was of considerable importance to himself, that he would like to discuss with me. He recognized that my quite recent arrival at Crucible made it somewhat awkward to have outside or new problems injected, but that he would like an appointment with me to discuss this matter.

We arranged a time and he came over to our offices and he called on me then.

Q. This was in the early part of 1945, I take it?

(Testimony of William H. Colvin.)

A. It was in March of 1945. It could have been the first few days of April, 1945.

Q. What occurred at your meeting?

A. I didn't know Mr. Swain. After the customary pleasantries of two strangers meeting, but two people who [1855] had common interests, we got down to the business that was the cause of the meeting. Mr. Swain asked me if I was familiar with the purchasing policy of our company as regards ferro-vanadium. He told me that the situation which prevailed was one giving to the Vanadium Corporation, their competitor, the great majority of our business, to almost the exclusion of themselves, that this situation had long been a source of distress to them.

It was irksome, perhaps somewhat embarrassing, and he wanted to know if I was familiar with it and if I was familiar with the reasons for it.

Q. And what did you say?

A. I tol dhim that I was not, and therefore could not carry on this discussion with him any further than to tell him that I wasn't, but I would be very glad to post myself in respect to it. That would involve some inquiries in New York where we then were, and some inquiries in Pittsburgh with our purchasing people, and with the old established Crucible people. It might even involve some checking in Syracuse, where our largest tool steel installation capacity exists.

I had a schedule at that time of spending every other week in Pittsburgh. I was due to leave, I

(Testimony of William H. Colvin.)

think, the following week. If possible I would include the request for this information during that trip. I would come back to New York [1856] with the information if I was able to get it in that time. I would then want an occasion to review it and study it and see whether the data thus developed would support the division of our business that had been established within Crucible, and I would discuss it further with him at that time, and asked that he defer any further discussion until I was so informed.

I was the one who agreed to call him when I was ready for a continuation of these talks.

Q. Did you call him and have another meeting with him?

A. Yes, sir. I can't say whether that was the week after I got back or whether more time than that was involved, but it was a relatively brief time, in any event, and I called Mr. Swain. We made an appointment to meet. I wouldn't now say whether the meeting was at his office or whether he came to our offices. I can say that we did meet.

Q. What occurred at that time?

A. I told Mr. Swain that the volume of total business going out of Crucible to Electro Metallurgical was so very substantial, whether that was measured in dollars or whether it was measured in pounds of ferro alloys—the total in the proportion of our business was so substantial that I didn't see any reason why they should be dissatisfied with it or tell me that they were dissatisfied,

(Testimony of William H. Colvin.)

the volume of vanadium going to the Vanadium Corporation seemed like a reasonable [1857] way was to share our business, and that I had found nothing in the studies that I had made or the review of the reasons of our other people in establishing their policies to interpose any authority from the president's office to change that. [1858]

Q. By "total business" do you mean business in other products than vanadium?

A. Yes, entirely.

Q. What did he say on that occasion?

A. I believe he expressed an understandable regret.

The most interesting thing, however, that he had to say was that he felt my calculations included an error or possibly an omission, and he pointed out to me that there were several ferro alloys which were necessary in the operation of our company and the production of our product for which his company was the only source; we needed to buy those; we did buy them from them; and yet no decision to buy from them was based on any competitive reason; they were the only place to go and get them. And he asked if in my calculations of the total volume, about which I had spoken, included those items, and I assured him that they did, although I didn't know what they were. He asked me if I was familiar with this situation, the single source, so to speak, and I told him that I was not; and he suggested that it would be a fairer way to analyze the total business, to deduct from

(Testimony of William H. Colvin.)

that total that I was being guided by the amount of these single-source, non-competitive items which were bought from them, not in competition but because they were the only source.

He asked me if I would give consideration to that approach and I told him that I would, [1859] I thought that it made sense, and I asked for time to have these figures developed, and that we would meet again and that we would see whether they were substantial or whether they were nominal or whether they would have any effect upon the overall situation.

Q. Did you then have another meeting with Mr. Swain? A. Yes, sir.

Q. And when and where did that occur?

A. That occurred relatively soon after the second meeting, in New York. I can't tell you where it was or any more accurately than that, except that it was not a very long time to gather this data.

I did get it. I did call Mr. Swain, told him that I was ready. He told me that he had his figures.

We met, we compared the figures, and, as I recall, they were within reasonable relationship or harmony.

I did make the deduction—or perhaps he did—and I think he asked me if that had a fact or a bearing upon the matter would it affect my decision or thinking. And I told him that having brought this subject up, I had gone somewhat further. Union Carbide has other divisions which serve the steel business, the steel industry, other

(Testimony of William H. Colvin.)

than Electro Metallurgical, National Carbon—are two of them—and from other units of the Union Carbide Company our company made also very substantial purchases. It seemed to me, and I expressed to Mr. Swain, that if we were going to deduct these [1860] items that he had selected, then it would only be sensible to include these items which I had not included in my personal analysis. Those figures were very substantial. The purchases of the items that Mr. Swain had selected were substantial in themselves but not in relation to the total figure. They represented an important business but not in the volume that we were, that Mr. Swain and I were, then talking about.

When we brought in these additional figures and we were operating, oh, five different steel mills, I think at that time, with sixteen, eighteen, nineteen electric furnaces in them going full; all of the or practically all of the electrodes which do the melting came from Union Carbide, and so on—when you add those figures in, the total figure then becomes overwhelming, of Crucible money going to Union Carbide divisions, overwhelming in the sense that the relationship between that total and the total of these single-source, non-competitive ferro alloys to which—which he had selected. And I told him that on the basis of the study that I had made originally or of the corrected studies we had made together later, that I saw no reason whatsoever to bring about a change in the pattern of our purchases which our purchasing people decided

(Testimony of William H. Colvin.)

upon was in our best selfish interests and that I would not make any change in the absence of some wholly new development, unforeseeable then and then unforeseen, which would justify changing or contemplating a change in our plans. [1861]

And then I told Mr. Swain that having brought this matter up and having had it considered and a decision reached, that I would ask him in the future to conduct his sales of ferro-vanadium in the purchasing office and not in the office of the president. And on that note we broke up.

Q. Well, subsequent to that time did the salesmen from Electromet or Union Carbide attempt to sell ferro-vanadium to Crucible Steel Company in the purchasing office?

A. Including Mr. Swain on down, yes, constantly.

Q. Turning to another subject, the Crucible Steel Company uses ferro-vanadum for making high-speed alloy steels, does it not?

A. Yes, sir.

Q. During the period that you were president of the Crucible Steel Company, to 1949, would a reduction in the price of ferro-vanadium from the $2.70 range to a $2.25 range have increased your purchases of ferro-vanadium for use in high-speed alloy steels?

A. The very short answer to that is no. I can elaborate.

Q. Would you give your reasons?

A. We don't buy ferro-vanadium for any other

(Testimony of William H. Colvin.)

reason than that our customers buy ferro-vanadium bearing alloys from us. We don't stock it or want to hold it or tie our money up in it. If our customers buy more, we buy more. If they buy less, we buy less. A drop of that nominal amount in the price of ferro-vanadium [1862] translated out into steel would have had, as I see it, no commercial impact whatsoever. We are talking about, really, peanuts. The highest vanadium content that I recall in high-speed tool steel, up to the wartime when tungsten high-speed steel was the leading brand, it was 1% vanadium. Under the impact of the war and the introduction of molybdenum, that went up to 2%. There were special varieties in small, tiny quantities that went much beyond that, but the stable, standard market variety carried 2%.

The tool steel itself, with this 2% in it, represents only 5% on the average of the cost of the finished tool, and the finished tool itself is a little point on the end of a great machine tool. The cost of running that is in the material it consumes, in shaping and drilling and forming parts for the ultimate assembly of the article to be finally sold to the public, the labor and the machine hours. The cost of that little tool point is not great but is one that is watched very carefully. So that we are talking about a percentage of a percentage of a percentage of a percentage of a percentage. It gets down to where to try and find that somebody would buy more automobiles or more washing machines or more refrigerators or bridges for a drop

(Testimony of William H. Colvin.)

of that sort in price of vanadium means nothing at all.

And do I answer your question?

Q. Yes. Would you have liked to have got a price reduction in ferro-vanadium? [1863]

A. We are buyers of services and raw materials which we convert into our finished product. Any economy was always greatly received and no questions asked. If we had felt that a reduction in the price was due us, that there was an exorbitant price, that is quite another matter; we would have taken steps.

As a voluntary offer to test out and see whether the market would expand, we would have welcomed it.

Vanadium, you understand, was a declining commodity for many years, except for a very brief time when the defense movement began, in the early times of the war.

Q. Did you ever meet with Mr. Burwell in 1946 or at any time?

A. I have never met Mr. Burwell. I don't know him.

Mr. Archer: I have no further questions.

Cross-Examination

Q. (By Mr. Alioto): Mr. Swain—did Mr. Swain ever offer you a price below that of Vanadium Corporation of America? A. No, sir.

Q. In other words, he offered to sell you at exactly the same price? A. Yes, sir.

(Testimony of William H. Colvin.)

Q. If he had offered you 10c or 15c off the price, would [1864] you have purchased from him as against the Vanadium Corporation of America?

A. Do you mean whether I would have purchased?

Q. Would you have purchased if that was the price differential between VCA and Union Carbide?

A. Do you want an answer to that question?

Q. Yes.

A. All right. Had that occurred, the normal course of events would have been to call our regular source and tell them that they were now asking us to pay a premium and that we were not willing to do it, as they automatically knew. Had they failed to be competitive, failed to meet that price, we would have changed sources.

Q. Now, did Mr. Swain tell you at any time that for some period of time the Vanadium Corporation of America was securing its supply of raw materials from his organization, the Union Carbide group?

A. I don't believe he was at the time I was president of Crucible.

Q. I didn't hear the answer.

A. I don't believe that was true when I was president of Crucible. I didn't know Mr. Swain before I was president of Crucible.

Q. Did you ever meet any other salesman from the Electro Metallurgical Company? [1865]

A. Yes, sir.

Q. Vanadium salesmen? A. Oh, yes.

(Testimony of William H. Colvin.)

Q. Who were some of the men you knew?

A. The man that I knew best was Ward Miller, Vice President in charge of sales.

Q. Vice President in charge of sales?

A. Vanadium Corporation of America.

Q. Of Vanadium Corporation of America?

A. That is what you asked.

Q. No. I am sorry. I didn't make it plain, Mr. Colvin. I apologize. My question was whether besides Mr. Swain you ever met any other salesman or representative of the Union Carbide group.

A. Oh, yes.

Q. Who were they?

A. Mr. Du Tot, Mr. Remmers. I knew Mr. Priestley personally for many years.

Q. Did they contact you during this period of time? A. Oh, no.

Q. Had they contacted you before to sell vanadium or did you just know them socially?

A. I knew Mr. Priestley; he was a man to whom I went from time to time in the steel business, as a kind of a father-confessor. If I had a problem that I didn't know what to do with, [1866] I would go down and ask him what to do with it. He had been with Crucible, you understand, many years before. He knew a lot of our operations and our properties and our problems. I discussed with him various individuals that I was thinking of bringing into the company from the outside.

I did not know Mr. Du Tot, Mr. Swain, Mr. Remmers and others of their sales divisions before

(Testimony of William H. Colvin.)

I came to Crucible in New York. I had known their Western people where I came from.

Q. Did Mr. Priestley try to sell you vanadium?

A. Mr. Priestley was—— As the President in charge of their sales company, I don't think he would have done that. He didn't do it. I don't think he would have.

Q. In other words, your answer is, he didn't do it, is that right? A. That's right.

Q. He never asked you to buy from his company, did he?

A. I would have fallen over backwards if he had.

Q. Despite this friendship you had with him over so long a series of years, is that correct?

A. That's right. There were no purchases of vanadium of any amount before I came to Crucible.

Q. Now, how long had you known Mr. Priestley? A. From what time?

Q. From 19—from the time that Mr. Swain was in your office. [1867]

A. Mr. Swain was in my office in '45, and I think I became acquainted with Mr. Priestley in 19—not earlier than 1936 and not later than 1938.

Q. You say you visited him many times in connection with his being a kind of a father-confessor to you because of his prior history with Crucible?

A. That's right.

Q. Prior to the time that Mr. Swain walked in your office did you know any other salesmen from

(Testimony of William H. Colvin.)

Electro Metallurgical Company or the Union Carbide group?

A. In Pittsburgh or New York?

Q. Anywhere.

A. Yes, I knew them in Detroit.

Q. You knew the salesmen in Detroit. Who were the salesmen you knew there?

A. Why, I couldn't tell you who they were.

Q. Had you purchased vanadium from them before that time?

A. I just testified that my company then used only a very nominal amount, if at all.

Q. You mean the company in Detroit?

A. That's right.

Q. Well, now, is it your testimony that not until Mr. Swain walked in your office in April of 1945 did anybody try to sell you vanadium, anybody connected with the Electro Metallurgical Company?

A. Nobody had any business selling me vanadium at that time. I didn't buy any.

Q. Regardless of whether it was business or not, prior to the time Mr. Swain walked in your office nobody from the Electro Metallurgical Company tried to sell you vanadium? A. No.

Q. Is that right?

A. I didn't buy any vanadium.

Q. Now, then, when was that period of time—excuse me. Prior to the time you came to Crucible you were with what steel company?

A. The Rotary Electric Steel Company of Detroit.

(Testimony of William H. Colvin.)

Q. How long had you been with that company?

A. Since 1933.

Q. Since 1933? A. 1933 until 1945.

Q. O.K. Now, then, this conversation with Mr. Swain, the first time that anybody from Electroc Metallurgical tried to sell you vanadium was in what month of 1945?

A. I would suspect March of 1945.

Q. March of 1945. Now, at that time there was an anti-trust investigation going on, wasn't there?

A. I have since been so advised.

Q. That the investigation was going on at the time Mr. Swain was in your office? [1869]

A. No, I believe that the investigation was then suspended because of the war.

Q. At least you had known that there had been an investigation in process at some time prior to March of '45? A. I didn't know, no.

Q. Well, you know it now?

A. I know it now.

Q. Yes. When Mr. Swain told you that there are many ferro alloys of which they were the only source, did he tell you which ones?

A. I can't answer that other than to say that I believe he did mention two or three.

Q. Do you know which ones they are of which they were the only source of supply? A. No.

Q. In other words, basically, what you told him, as I understand it, Mr. Colvin, is that you weren't going to recognize any distinction in the Union Carbide groups or divisions, that you were going

(Testimony of William H. Colvin.)

to try to balance the purchases as between those two companies; is that it?

A. I think that I went further than that and told him that we tried to give—see that our money went as far as our contribution could to maintain competition and more than one source for us. We had the same situation exactly in tungsten, which was a product of theirs, we wouldn't buy any of it. [1870] We bought it from another source who didn't make vanadium, for example. We did that with Vanadium Corporation as a way to keep two sources in the vanadium business.

Q. Now, finally, did you have some kind of contract with Vanadium Corporation of America?

A. I don't know, myself. I doubt that. We might have.

Q. Do you know whether you had a requirements contract with them?

A. I say I don't know. We might have. I didn't pay attention to those things.

The Court: Did you observe the relationship between these two companies as that of competitors or otherwise?

The Witness: Your Honor, they were very competitive, within my observation, extremely so, on quality, on service, on their solicitation—it was aggressive, and I am talking now about the presidents and vice presidents of those companies, whom I know personally. Yes, sir, they were.

Q. (By Mr. Alioto): How competitive were they on price? A. None.

(Testimony of William H. Colvin.)

Mr. Alioto: Thank you.

The Witness: There is no way to get a premium in the steel business. [1871]

Cross-Examination

Q. (By Mr. Holland): Mr. Colvin, I hope it wasn't just because we were the poor boy that you gave us the vanadium business, was it?

A. No, Mr. Holland. The activities of the Vanadium Corporation of America in starting out with this product, ferro-vanadium, as an alloy, they taught us the early steps of the processing; they, at their own expense, went out to the trade, to the people who were not only our customers but the customers of all of the alloy suppliers, spread the gospel about the value of this material, interested them; were directly responsible I think for Ford's active early interest which really made the vanadium business back before Moly took its place. Vanadium Corporation gave us excellent service at all times, and they were in our plants, at their expense, with technical advisers and counsel. If something was developed elsewhere that we needed to know about, that would help us, they would tell us. If we developed something, they would see that that was spread out to the trade and to competition, keeping everybody up to date, and we always felt, in my knowledge, that it was the early work of the Vanadium Corporation which did a great deal to popularize the conception of alloy steel, not just vanadium but—— [1872]

(Testimony of William H. Colvin.)

Mr. Alioto: What period is the witness speaking of?

Mr. Holland: From 1938 on we are speaking of.

Mr. Alioto: Are you speaking only of the period from 1938 on?

The Witness: That is all my knowledge is.

Q. (By Mr. Holland): was any charge made for these additional services?

A. No, that is a service that goes along with the product.

Q. Were you speaking of your experience other than with Crucible?

A. I am talking about the American iron and steel mills in the growth of the alloy business.

Q. When you said the Vanadium Corporation of America made the early, I think you called it, effort to get the alloy known, what period were you speaking of?

A. I don't know what period that was. That was well back. I was still in school.

Q. How far back?

A. About World War I somewhere.

Q. Is it your testimony here that these two companies have been competitive since World War I down to the present time?

A. No, sir, I do not believe the Carbide Company came [1873] into the vanadium field until about 1926 or 1927, is my recollection.

Q. Is it your testimony that they have been competitive from 1927 down? A. Yes, sir.

Mr. Alioto: Now may I go into this problem?

(Testimony of William H. Colvin.)

The Court: No, you cannot. You really had no business asking that question.

Mr. Alioto: No; he answered Mr. Holland's question. I didn't ask that question.

The Court: We are not going into it.

Mr. Alioto: O.K., Judge. I didn't bring it up. He was answering Mr. Holland. It is not fair for a witness to give an impression of competition, and then not let us show the documents in this matter.

The Court: The Court has ruled on that a number of times, and we are not going back beyond 1938.

Mr. Alioto: But this witness, at Mr. Holland's hand, did do that.

The Court: I know, and that ends it.

Mr. Alioto: All right.

The Court: The only question the Court would ask the witness if it is embarrassing for a man from Florida to come to California.

The Witness: I lived two years in Oklahoma, too.

Mr. Alioto: Let me ask one other question, please.

Q. (By Mr. Alioto): Did you come up in the Crucible Company as a commercial man, or on the technical side? A. On the financial side.

Mr. Archer: All I can say, Mr. Colvin, is thank you very much for coming.

That is the end of our witnesses, your Honor. I believe Mr. Holland has some.

(Witness excused.)

Mr. Holland: I am afraid I have.

Mr. Bigler.

HAYWARD L. BIGLER

called as a witness on behalf of the defendants, and being first duly sworn, testified as follows:

Q. (By the Clerk): Will you state your full name and address?

A. Hayward L. Bigler, 15055 Park Drive, Saratoga, California.

Direct Examination

Q. (By Mr. Holland): Mr. Bigler, you are now a resident of California, is that correct?

A. That is correct. [1875]

Q. Were you for some years a resident of Colorado? A. I was.

Q. Where did you live there?

A. At Cortez.

Q. How long did you live in Cortez?

A. From 1931 until 1955.

Q. Confining our questions to the period July 1, 1938, on, were you in the vanadium business in 1938 in any way?

A. Not in the early part of 1938. In the latter part I was—indirectly.

Q. What was the nature of that business?

A. I was supplying fuel oil to H. J. Kimmerle, Sr., for a small vanadium mill southwest of Blanding, Utah.

Q. What was your principal business, the oil business?

A. The oil distributing business.

Q. Will you tell the jury what further hap-

(Testimony of Hayward L. Bigler.)

pened in respect to that Kimmerle mill that you furnished oil to?

A. Mr. Kimmerle had some financial difficulties and shut down his operation, owing quite a few bills, including quite an expensive bill to me, and in the following year he sought to start the mill up again and came to me for some petroleum products, and because of his past due indebtedness I refused to sell him unless I had some assurance that he would be able to pay, and he eventually gave me an assignment on a portion of the funds to be derived from the sale of this product. [1876]

Q. (By the Court): Who is this you are talking about?

Mr. Holland: His name is Kimmerle. He had a vanadium mill at Blanding.

Q. (By Mr. Holland): This mill was at Blanding, wasn't it?

A. It was about 15 miles southwest of Blanding in the Cottonwood District in Utah.

Q. You eventually, I believe, took over that mill and operated it for the benefit of creditors, isn't that correct?

A. Well, he had further financial difficulties, and an attorney for creditors interceded and shut him down, and the creditors came to me and asked if I would take over the management of that mill, run it for the benefit of the creditors, and see if it would be possible to recoup some of their losses, and I, together with Mr. Usher and a bank at

(Testimony of Hayward L. Bigler.)

Cortez, acted as managers, and kind of conservators of the funds received from that operation.

Q. How long did you run that operation for the benefit of the creditors?

A. That began approximately in the latter part of September or the first of October in 1939, and as I recall it we shut it down in 1940, in February, because of some serious mechanical difficulties and failures.

Q. Where did you sell that oxide? [1877]

A. I believe that was all shipped to the Continental Ore Company in New York.

Q. Was that for foreign shipment?

A. As far as I know it was. We had no way of knowing exactly what the ultimate destination of those shipments were.

Q. What were you paid for it, do you remember?

A. I believe that we got as high as $1.30 for some of that, but I am not sure whether we got that much for all of that, for V_2O_5 contained, that is, per pound.

Q. Did you get more than a dollar for all of it?

A. Yes, I believe we did.

Q. (By the Court): What year was that, now?

A. In the fall of 1939, and January, and possibly February, 1940.

Q. (By Mr. Holland): At that time did you know Mr. Leir?

A. No, I did not know Mr. Leir personally at all during that time. We made shipments to the

(Testimony of Hayward L. Bigler.)

Continental Ore Company in New York, and that was the market that Mr. Kimmerle had developed, and we had Mr. Kimmerle's son working with us at that mill, and we followed right on through with the marketing policies of the previous operation.

Q. In February of 1940 did you shut down the mill to rehabilitate it? You testified it was not working mechanically. [1878]

A. We shut it down and notified the attorney for the creditors that we had so much money at the present time, and asked whether or not we were authorized to spend that for major repairs, or whether or not they wished us to distribute it to the creditors, and after some discussion among themselves we were notified to turn the money over to the attorney for the creditors for distribution, and that was the end of that operation.

Q. Then another operation started?

A. Later on that year myself and one or two other associates decided that there was an opportunity in the vanadium business, and we contacted the owner of the claims that this mill was located on, a Mr. Frank A. Garbutt in Los Angeles, and negotiated a contract with him to lease the property and the old mill and to attempt to rehabilitate, or rehabilitate it as I saw fit, continue the operation, and pay Mr. Garbutt a royalty, as had been the previous arrangement with Mr. Kimmerle and our operation for the benefit of creditors.

Q. You did form a corporation to operate this venture?

(Testimony of Hayward L. Bigler.)

A. We did at a later date. That contract was negotiated in my name and in the name of H. J. Kimmerle, Jr., and Dan Milenski of Cortez, and later assigned to the corporation that was formed.

Q. What was the name of that corporation?

A. Blanding Mines Company. [1879]

Q. During the ensuing period was the operation conducted by the Blanding Mines Company?

A. From the time that the corporation was formed it was all conducted in the name of Blanding Mines Company.

Q. That was before you reopened the mill, wasn't it? A. That is right.

Q. What office did you hold in that corporation?

A. I was the president of the company.

Q. Who were the other officers?

A. Dan Milenski was one. I believe that he was secretary, that is, of the original group. And Fred Brinker was treasurer. And I believe we had as a director a Don Adams in Monticello, Utah, and Marvin Lyman at Blanding, Utah.

Q. When did you get back into operation after your shutdown in February of 1940?

A. Well, we operated some in 1940, and had further difficulties.

Q. Do you remember when you started operating in 1940?

A. No, I do not. I don't remember the exact dates, but it was in the latter part of the summer or fall, as I recall it.

(Testimony of Hayward L. Bigler.)

Q. To whom did you sell your product during the year 1940?

A. We shipped it to Continental Ore Company, as I recall it, or at their instructions, at least. The sale was made and consummated through their office. [1880]

Q. And that oxide was destined for the Apex Smelting Company in Chicago, is that correct?

A. I believe most of it went to Apex Smelting in 1940.

Q. Some of it went direct to Continental Ore?

A. It seems to me there might have been one or two small shipments that went direct to New York, but I wouldn't be too positive about that.

Q. Shortly after you started operating did you feel that with the expenditure of a reasonable sum of money you could double the capacity of that plant?

A. Yes, we thought we could.

Q. Did you try to secure financing from anyone?

A. Well, we tried a little bit locally, and then as an afterthought I believe we approached the Continental Ore Company and tried to get some financing through them in New York, with the proposal that we would like to repay it out of the product, the sale of the product, at least a percentage of the sale of the product.

(A document was handed to Mr. Alioto.)

Mr. Alioto: Do you know who the writer is?

Q. (By Mr. Holland): Mr. Bigler, will you

(Testimony of Hayward L. Bigler.)

look at that letter and see if you can tell me who the writer is, or was? That is a copy of it.

Mr. Alioto: We have no objection to the letter, [1881] itself, but I would like to ascertain who the writer was, if we can.

A. Yes. It says "S-e-e." Rather somewhat of a misprint. But Dan Milenski was the writer, I am sure, and he was secretary of the corporation.

Mr. Holland: I offer it in evidence as defendants' next exhibit in order.

Mr. Alioto: No objection.

(The letter referred to was thereupon marked Defendant V Exhibit 2-I in evidence.)

Mr. Alioto: We have no objection.

Mr. Holland: I wish to read to the jury the letter of September 13, 1940, to Continental Ore Corporation from Blanding Mines Company:

"We have carefully considered the possibilities of increasing the capacity of our mill, and we are of the opinion that capacity could be increased to 25,000 to 30,000 per month within three and a half months. We feel that our logical method of increasing the capacity is to use a de-liming process which we have access to and which is a patented process. By use of such de-liming process, the capacity could be at least doubled.

"In the matter of increase of output, it will take some $20,000.00, and in this locality that is [1882] a considerable sum to raise. We have placed quite a large sum in the construction of the present mill and are now somewhat handicapped by lack of

(Testimony of Hayward L. Bigler.)

funds, and we would like to be able to raise those funds and repay out of sales. Do you know of any arrangements that could be made along those lines?

"We have access to a great quantity of ore that runs quite high in lime content, and since the ore we are working has some lime in it, it takes longer for the roast than it otherwise would, and also recovery is not so high. Reliable chemists inform us that by de-liming that our roasting time could be reduced by one-half and recovery increased by possibly 10%.

"Our development work has progressed quite well and we are well satisfied with our supply. Production has been somewhat handicapped by reason of the recent overhauling of the fuser, and we have a considerable quantity of red cake ready for the fuser. With additional capacity on the fuser and the de-liming process above mentioned, we will accomplish the needed results.

"Of course, we do not care to obligate ourselves for additional funds unless we are assured of a long time contract at a profitable price. [1883]

"Will you please outline to us a long term contract so that we may complete our analysis of the situation?"

The next comes on September 23rd, 1940, a letter from Continental Ore Corporation, Mr. Leir, to Blanding Mines Company:

"Gentlemen:

"We refer to your letter of September 13th regarding a possible increase in your production.

(Testimony of Hayward L. Bigler.)

"Apex and ourselves have come to the conclusion that we must keep our funds liquid for the cash payments for our raw materials which, as you may imagine, run into considerable amounts.

"We therefore, unfortunately, cannot consider participating in the financing of your mill."

Then there is the suggestion that they apply to the RFC (continuing reading):

"We are, of course, prepared to make a contract with you for either a fixed quantity or, at your option, for your total monthly output for, let us say, a period of three months, renewable.

"We hope that some arrangement of the kind outlined above will suit you and we look forward to hearing from you further." [1884]

Q. (By Mr. Holland): Mr. Bigler, did Continental Ore Company, or Apex Smelting Company, ever at any time furnish you with any financing or financial help in connection with your mill?

A. Not at all.

Q. When you in your letter asked for a long time contract in order to spend this money on the mill, did you have reference to a three-month contract? A. We did not.

Mr. Alioto: If your Honor please, I think it is clear that this witness did not write that letter. He was asked what was said in a letter.

Mr. Holland: I will lay a foundation for this.

Q. (By Mr. Holland): Mr. Bigler, who ran the Blanding Mines Company, and who made their decisions in respect to their policies?

(Testimony of Hayward L. Bigler.)

A. I did to a great extent.

Q. And when important letters such as this were written, would you confer with the other officers before writing? A. That's right.

Q. Do you recall conferring with Mr. Milenski prior to the writing of this letter? A. Yes.

Q. And did he write this letter at your instructions?

A. He wrote it with my consent and approval.

* * * * *

Thursday, June 19, 1958, 9:30 o'clock a.m.

HAYWARD L. BIGLER

called as a witness by and on behalf of the defendants, having been previously duly sworn, resumed the stand and testified further as follows:

Direct Examination—(Continued)

Q. (By Mr. Holland): Mr. Bigler, just before court adjourned yesterday, you testified to the fact that in the fall of 1940 you had applied for financing a long-term contract with Continental Ore Company, is that correct?

A. That's correct.

Q. And you had received a letter from Mr. Leir to the effect they would not indulge in financing and that he would give you a contract limited to three months duration. Is that correct?

A. That's right.

Q. What price were you receiving for your

(Testimony of Hayward L. Bigler.)

oxide from the Continental Ore and Apex in the fall of 1940, do you remember?

A. It was approximately a dollar to a dollar three cents a pound. I don't recall exactly at what period there were changes and whether or not that was f.o.b.—I believe that was f.o.b. Chicago, if it was a dollar, and maybe a dollar three at rail points in Colorado or Utah. And, if I remember [1888] correctly, we paid three percent—two and a half or three percent commission to Continental Ore for selling the product.

Q. And on the first of January, 1941, was a price change put into effect, do you remember?

A. I couldn't ascertain.

Q. To refresh your recollection, I will hand you a couple of letters and ask you if you can refresh your recollection from those letters.

A. (Examining.) Yes, I remember that.

Q. What change in prices was put into effect by Continental Ore and Apex on January 1st of 1941?

A. According to that letter, it indicates a dollar a pound f.o.b. Chicago.

Mr. Alioto: Counsel, may I see the letter from which the witness refreshed his recollection?

Mr. Holland: Certainly. I will put them in if you prefer. I am trying to hold the size of this record down.

Mr. Alioto: No. I just wanted to see it, that's all.

(Testimony of Hayward L. Bigler.)

Mr. Holland: I mean, I will do whatever you want to do.

Mr. Alioto: I have no preference.

Q. (By Mr. Holland): What change was made in the price paid at that time? [1889]

A. The reduction of three cents a pound, I believe—it was either two or three cents a pound. That was to a dollar a pound f.o.b. Chicago, according to that letter.

Q. Now, Mr. Bigler, how long did you operate after the first of January, 1941, do you remember, approximately?

A. We didn't operate very long in '41. I don't remember the date. We shut down to make some further improvements and changes in the mill, and, as I recall it, we did not resume operations other than on an experimental basis and test runs until the fall of '41.

The Court: You are speaking of Apex?

A. No, I am speaking of our own milling operation at the Cottonwood Mill at Blanding, Utah.

Q. (By Mr. Holland): And you say you started up again in the fall of 1941. Theretofore you had sold your product only to Continental Ore and Apex Smelting through Continental Ore, is that correct?

A. I don't believe we sold to any other parties during the operations when I had the part in it.

Q. In the fall or summer or about the time shortly before the time you reopened your mill,

(Testimony of Hayward L. Bigler.)

did you make any efforts to bring about an increase in the price you had been receiving?

A. Well, it was during the summer of '41 while we were doing the improvement work on the mill that we decided that we would investigate to find out if there were any other more [1890] favorable markets than we had, and Mr. Harrison, who was with us at that time, and Mr. Brinker, carried on some correspondence and made some inquiries as to where vanadium oxide was used in the industry and endeavored to get quotations from several different parties.

Q. And did you get quotations from different parties?

A. I think we had quotations from two or three.

Q. Including Vanadium Corporation of America? A. (Witness nods head.)

Q. Now, you produced some oxide in the fall of 1941, is that correct?

A. Yes, we produced some but I do not believe we had any great amount accumulated until late in the fall.

Q. And did you finally make a sale of that oxide?

A. I believe the next sale we made was to the Vanadium Corporation of America.

Q. Do you remember about when that was?

A. It was around either late in 1941 or very early in January in 1942, as I recall.

Q. Do you remember the price at which that sale was made?

(Testimony of Hayward L. Bigler.)

A. Dollar ten a pound f.o.b. mill, our mill at Cottonwood.

Q. Were there advantages other than the actual price in selling to Vanadium Corporation of America as opposed to selling to Continental Ore or Apex?

A. Yes. We had no expense whatever in transportation [1891] to rail heads. The Vanadium Corporation accepted our product molded in bricks. They furnished the shipping bags, and we had no expense as far as assaying was concerned, as we had had with shipments to North Continent Mines where we had—I mean North—I mean Continent Ore—Continental Ore, which, as I recall it, was paid one-half of Ledoux and Company's sampling and assaying.

Q. Did you feel that, all things considered, the price of a dollar ten paid by Vanadium Corporation represented the best offer you had?

A. Very much so.

The Court: What other offers did you have?

A. We had the offer from—we had an offer from the U. S. Vanadium Corporation, for one, and we had the offers from Continental Ore at that time, too.

The Court: What prices did they offer?

A. I think the U. S. Vanadium offered 90 cents a pound, if I remember correctly. I don't believe we had any other offer from them. And that was early in the summer of '41 we contacted them.

And there was a lot of correspondence with Con-

(Testimony of Hayward L. Bigler.)

tinental Ore, back and forth, on the price, and I don't recall exactly what varied offers were made by them. It started out at a dollar two or a dollar three, and I think they gradually increased it up to the equivalent around a dollar fifteen [1892] cents f.o.b. Chicago, we paying three percent commission on that, I believe, for—but I can't be too sure unless I have the correspondence, because my memory is a little bit hazy on what occurred back sixteen, seventeen years ago.

Q. (By Mr. Holland): Was a dollar ten from Vanadium Corporation of America a better price, all things considered, than a dollar fifteen, offered by Continental Ore?

A. We considered it so because there were no transportation costs, no assaying costs, no packaging costs, no freight at all to pay.

Q. In other words, V.C.A. picked up your ore right at your mill, is that correct?

A. I might say, the stuff was weighed and we could pick our check up at Monticello the next day for 80 percent of it.

Q. There is in evidence a letter, in Exhibit No. 131, which is a letter from Blanding Mines by Dan Milenski to Apex Smelting Company, dated January 9, 1942, which states:

"At the advice and recommendation of the owner of our claims, it will be necessary for us to dispose of our product here. We regret very much that we will be unable to deal with you."

Do you know about that letter?

(Testimony of Hayward L. Bigler.)

A. Yes, I recall such a letter.

Q. What did he mean by "at the advice and recommendation of the owner of our claims it will be necessary for us to [1893] dispose of our product here"?

A. Well, Mr. Milenski worded that letter, as I recall it, because of the fact that Mr. Garbutt received a royalty that was based on our net f.o.b. Blanding, and because of the fact that the dollar ten was in our opinion just as good or better because of the fact that we did not have to grind and we did not have the losses that might be incurred from grinding and the other expenses, that we would be better off to sell locally, that the net return would be at least a cent or two a pound greater than if we went to the expense of grinding and shipping to Chicago, and we did not care to install the necessary equipment for the grinding of the product that came from the mill molded in bricks, approximately a hundred pounds in size.

Q. Well, now, did Mr. Garbutt put any pressure on you to sell the Vanadium Corporation of America?

A. I don't believe that he did. I think that it was strictly an economic factor as far as he was concerned, and knowing Mr. Garbutt as I did, the dollar counted with him, and if he figured there was some net advantage to us, why, he would definitely recommend it to be sold. In fact, I might say, I don't recall exactly the wording in the old

(Testimony of Hayward L. Bigler.)

original contract that we had with Mr. Garbutt, but he had a profit-sharing clause in that, too.

The Court: Who is Mr. Garbutt, now? [1894]

A. He was the owner of the claims on which the mill was located that we were operating.

Q. (By Mr. Holland): In other words, you consulted with him before determining where to sell your product because he had an economic interest in it?

A. That's right. He definitely had an economic interest in our operation, either through royalty or profit-sharing agreement.

Q. Well, now, along in the spring of 1942, as shown by Exhibit 131, you asked on March 27 Mr. Leir to submit the best price and for a six months' —and to take your output for a six months' period, and he came back and offered to take your output at $1.20 your nearest station. "Acid must be crushed to one-eighth inch and down. We return bags freight collect."

And you turned that offer down.

Will you state why?

A. Well, as I recall, at that time we conferred again with Mr. Garbutt and he thought that inasmuch as we were getting what was considered to be a satisfactory price at that time and this was going to require the installation of crushing machinery, and again the inconvenience of the dust in the mill, which was irritating, and the dust losses, that we probably would be better off to continue

(Testimony of Hayward L. Bigler.)

to sell the product in the form that it came from the mill, instead of crushing. [1895]

Q. (By the Court): Did you have any other source for the ore as it came from the mill except the Vanadium Corporation?

A. The offer that came from Continental here by this letter that Mr. Holland just referred to.

Q. (By Mr. Holland): At that time you were selling your oxide to V.C.A. for $1.10 picked up at the mill, is that correct?

A. That is right.

Q. You considered that, all things considered, that was better than $1.20, in view of the installation of the crushing equipment?

A. Well, no, we didn't consider it—I mean, we didn't consider it was any better than the $1.20, but because of the fact that the cost of the crushing equipment and the cost of crushing was going to run that cost up, we couldn't tell exactly how much. But if we had to amortize the cost of the crushing machinery, depending on how long it was going to be used, it might have run that cost up to even more than the $1.20, if it was only for a comparatively short period of time.

Q. And then you had the other advantages that you spoke of before, is that correct?

A. That is right.

Q. (By the Court): Was your decision to sell, then, as you sold it, based [1896] upon what you considered economic reasons?

A. Yes, and because of the fact that Mr. Gar-

(Testimony of Hayward L. Bigler.)

butt had the privilege of, at any time, under his contract, asking us for a percentage of the profits, and he could even have stepped in and, as I recall, have bought a half-interest in our milling operation. We had to confer with him, and his recommendations were that inasmuch as this was apparently only on a temporary basis, and inasmuch as we had a very satisfactory outlet at $1.10 a pound in the brick form, we would probably be better off to continue to sell as we had for the previous few months to V.C.A. at $1.10 net to us f.o.b. our mill. We had no trucking expense, no packaging expense, they picked it up with their own truck, we weighed it at the mill, it was re-weighed when it got to its destination, sampled, we were furnished with the pulp, the settlements came through, we ran our own analysis in our own laboratory, and no expense to us at all after it was picked up at the mill.

Q. If you had sold to Continental Ore what would you have been required to do?

A. We would have been required to grind that to one-eighth inch, which we didn't want to do. We didn't have the facilities to do it, and we didn't care to install them. We would have been required to ship that in tight packages, because one-eighth inch stuff has also even dust. It would have had to be dust-proof containers. And in the event of a damaged [1897] container, there could have been loss incurred in the shipment.

The grinding of fused vanadium oxide produces a very irritating dust, which actually, sometimes,

(Testimony of Hayward L. Bigler.)

if the men got too much of it, resulted in a form of pneumonia, and we just didn't care to have that condition existing in the mill.

(The letter formerly referred to was marked Defendant V Exhibit 2-J in evidence.)

[See Book of Exhibits.]

Mr. Holland: I would like to read Defendants' Exhibit V 2-J, being a letter of March 16, 1942, from Mr. Leir to Blanding:

"As you can see from the enclosed clipping, prices for ferro alloys will remain unchanged during the second quarter. However, we have an idea which makes it possible for us to pay our suppliers an especially high price, which would work out in your case to be as high as $1.20 f.o.b. Blanding."

Q. (By Mr. Holland): At approximately this time Vanadium Corporation purchased your claims from Mr. Garbutt, did they not?

The Court: What was that?

Q. (By Mr. Holland): Vanadium Corporation of America purchased the Garbutt claims from Mr. Garbutt, the claims that Blanding Mines Company had a lease on, is that correct?

The Witness: What was the date of this [1898] correspondence?

Mr. Holland: This was back in March.

Mr. Alioto: March 16, 1942.

A. It was subsequent to that, as I recall it—sometime in April—that we were notified that such negotiations were about to be consummated, and I believe it was after the 1st of May that we were

(Testimony of Hayward L. Bigler.)

notified definitely that the deal had been closed and signed.

Q. (By Mr. Holland): And thereafter, early in June, you made an agreement, a supplemental agreement, with the Vanadium Corporation, under which you took the cream of the claims around your mill and continued to operate on those, is that correct? A. Yes.

Mr. Alioto: Of course, we were accused of asking leading questions, your Honor. We will object to that as leading. If they have a contract, they should put the contract in.

The Court: It is a leading question.

Mr. Holland: You can put it in if you want.

Mr. Alioto: Do you have the contract?

Mr. Holland: Have you got it?

Mr. Alioto: Yes. I would like to put it in.

Q. (By Mr. Holland): Do you recall approximately when that contract was [1899] made with the Vanadium Corporation?

A. Well, it was around the first part of June, as I recall it, that we consummated the revision of the contract.

Q. Did that agreement with the Vanadium Corporation require you to sell their oxide to the Vanadium Corporation? A. No, it did not.

Q. There is in evidence a letter dated June 20th from Mr. Leir to Blanding in which he says:

"The Apex Smelting Company forwarded your letter of June 16th to us and we take pleasure in enclosing herewith a schedule showing the prices

(Testimony of Hayward L. Bigler.)

at present paid by the Apex Smelting Company for fused vanadium oxide."

And those prices run from $1.10 on small lots to $1.15 on lots in excess of 10,000 pounds.

And on June 23rd you wired:

"Letter received. Quotation not satisfactory."

The Court: How was that?

Mr. Holland: "Letter received. Quotation not satisfactory."

Q. (By Mr. Holland): Now, Mr. Bigler, shortly after you asked for this quotation from Apex your mill burned down, I believe, did it not?

A. That is right. [1900]

Q. When was it reopened?

A. Well, the Defense Plant Corporation, as I recall it, was the government agency that stepped in and rebuilt the mill for us. It was not a duplicate of the old mill, but they did rebuild a mill of approximately a 15-ton-per-day capacity. I believe it was in 1943, in the early part of the summer, that we got that mill into operation.

Q. And did you operate that mill from that point on?

A. No, we operated that mill for approximately two months, but it had a different type of roast. It had that batch run that the Defense Plan Corporation engineers were offering and insisting that we put in, and it was not satisfactory as far as recovery, and neither was it satisfactory as far as the quality of the product was concerned, and the two months that we operated we operated at a loss.

(Testimony of Hayward L. Bigler.)

Q. What did you do then?

A. We shut the mill down. I had asked for more subsidy or assistance, or to operate on a cost-plus basis, from the governmental agencies at that time and was turned down on it. Also I asked if we could expect to be paid for uranium concentrate, which I knew was being recovered at other mills in the Plateau area, if we installed a step to recover that, and that was hush-hush. They wouldn't even discuss uranium with us.

So we shut down and negotiated a contract to sell over [1901] to the Metals Reserve Corporation, and fr[illegible] there on confined our activities to mining.

Q. [illegible]d that ore was destined for Metals Reserve mill?

A. It was delivered to whatever stockpiles Metals Reserve designated.

Q. How long did you sell ore to the Metals Reserve program, do you remember?

A. Until they ceased buying, which, as I recall it, was around the first of March of 1944.

Q. What did you do then?

A. We decided to try to reopen the mill and run again. I didn't quite approve of it, but Mr. Brinker was our engineer and metallurgist. He thought we ought to do it. And so I agreed to go along with him on a short period of time experimental basis and see whether or not we could improve the recovery that we had gotten before and make it profitable.

Q. And did you reopen the mill?

(Testimony of Hayward L. Bigler.)

A. Yes, we did.

Q. At that time did you approach anyone with respect to purchasing your product?

A. Yes. We, I think, approached more than one, but I don't recall. Mr. Brinker was in charge of that. And we found that at that time there was no longer an urgent need for fused vanadium oxide and the market was extremely dull.

Q. Did you approach Continental Ore Company? [1902]

A. Yes, I believe we did. Either Mr. Brinker or Mr. Milenski, on behalf of Blanding Mines Company, started correspondence with them.

(A document was handed to Mr. Alioto.)

Mr. Alioto: We have no objection to any of this material.

(The exchange of correspondence referred to was marked Defendant V Exhibit 2-K in evidence.)

[See Book of Exhibits.]

Mr. Holland: Exhibit 2-K, of which I shall read portions, consists first of a letter of February 8, 1944, to Mr. Leir, from Blanding Mines, or probably—simply signed by Milenski (reading):

"In line with your telephone conversation yesterday I talked at length to Blanding Mines' engineer, Mr. Fred A. Brinker, Durango, Colorado, concerning the probable disposition of this concentrate. I found that Mr. Brinker has been in contact with both U. S. Vanadium Company and Vanadium Corporation of America. However, he has dealt with

(Testimony of Hayward L. Bigler.)

neither, and as far as Mr. Brinker is concerned, he was willing to make an equitable deal with your company, as I advised over the phone. The process which Brinker discovered while in the employ of Blanding Mines is the separate property of Mr. Brinker.

"Blanding Mines controls quite a number of claims, [1903] and with these claims and others we could acquire or control it is our opinion that we could, through this process, concentrate and treat the concentration and recover approximately 50,000 pounds of vanadium and a considerable quantity of uranium every month.

"Mr. Brinker suggests that if you could spare the time to make a trip to this section, he believes the same highly desirable and advisable, for the reason that you could see these properties and could see the mills in this territory, and in addition you could get a complete picture of the actual mining and mill costs and production practices and problems.

"Blanding Mines Company's records are kept in great detail, and we have cost analyses of every phase of the operation.

"We would believe that it would be unavailing to meet in any location other than here for the reason that you ought to familiarize yourself with the production of vanadium and uranium.

"I believe that Blanding Mines would be interested in working out a joint undertaking, or some other arrangement whereby we could work in

(Testimony of Hayward L. Bigler.)

harmony and to the mutual advantage of each other, and that such an arrangement is highly desirable on account of your [1904] marketing setup and your marketing ability, and our milling and producing experience.

"To utilize Mr. Brinker's process we would need a concentrating mill and a treatment plant. Expansion should take care of itself. The costs of recovery by this process will be much less than it has been in the past. Whether or not others would be licensed is another problem."

And in answer to that——

The Court: Who wrote that letter?

Mr. Holland: That was written by Mr. Milenski of Blanding Mines to Mr. Leir.

In answer to that, on the 14th of February, Mr. Milenski received a wire from Mr. Leir reading as follows:

"Just received your letter of the eighth. Intend to be in Colorado very shortly and probably leave before end of month. Would like to bring friends with me interested in financing. Has new process been actually proven on vanadium ore and on which scale? Please answer this again as detailed as possible by wire."

The Court: What question was to be answered?

Mr. Holland: The question about Brinker's concentrating process.

Then on the 18th a wire from Mr. Leir:

"Will arrive Grand Junction, La Court Hotel, Wednesday evening March first and be available

(Testimony of Hayward L. Bigler.)

Thursday and Friday March second and third. Must leave Grand Junction Friday evening for Denver. Please arrange to come to Grand Junction with your associates."

Mr. Milenski wired Mr. Leir:

"Suggest you arrange to have us meet you in Alamosa."

Mr. Alioto: May we have the date of that wire?

Mr. Holland: It doesn't say; there is nothing on it to show.

Mr. Alioto: All right.

Mr. Holland (reading): "Suggest you arrange to have us meet you in Alamosa. You may get the train from Denver to Alamosa in the evening. This would permit you to examine our mining and mill records in Durango, Colorado, and then we could go to the mining districts near the mill and we could take you to Grand Junction if you wish. Deem it advisable for you to have about three days in this territory, as we desire that you thoroughly familiarize yourself with our operations and holdings."

Q. (By Mr. Holland): Mr. Bigler, as a result of these letters and wires, what happened?

A. Nothing. [1906]

Q. Did you meet Mr. Leir in Grand Junction?

A. Oh, yes. We went up there and found quite a group of others there, also.

Q. Was there anyone interested in financing the project?

(Testimony of Hayward L. Bigler.)

A. Not at all. Couldn't even get the matter discussed.

Q. What did you discuss in Grand Junction?

A. As I recall it, there was an effort being put forth to form an association of ore producers, independent association of ore producers. I forgot what the proposed name of it was. [1907]

The Court: What conversation did you have with Mr. Leir at that time?

A. Very little. I don't recall, but it was very apparent that, he told us, they were not at all—I will say that he told us they were not interested in financing any milling operations.

Q. (By Mr. Holland): Did you discuss the question of a contract for him to take the product of your mill at that time?

A. Yes. I believe it was at that time—it was about that time. And I do not recall definitely as to whether or not we had much of an opportunity to discuss the contract at Grand Junction or whether we resumed our discussion by correspondence on a contract for the product of any mills that we might operate in the future.

Q. Well, now, as a result of that meeting in Grand Junction, Mr. Leir submitted to you a proposed contract for the purchase of the product at your mill, did he not?

To refresh your recollection, I show you Exhibit 139.

A. (Witness examining.) Yes, that contract was submitted.

(Testimony of Hayward L. Bigler.)

Q. Do you recall a contract being submitted to you?

A. As I recall it, it was delivered to Mr. Milenski.

Q. Do you recall discussing it with Mr. Milenski? A. Definitely. [1908]

Q. And do you recall that Mr. Milenski wrote an answer? A. Yes, he did.

Q. In response to the contract?

A. Yes.

Q. This is a contract or a draft of a contract with the blank day of March, 1944, between Blanding Mines Company, party of the first part, and Continental Ore Company, party of the second part.

I shall just read certain portions of it and Mr. Alioto, of course, can read anything that he might consider significant.

Paragraph I recites:

"Continental undertakes to receive delivery of the entire output of vanadium pentoxide as produced by Blanding as the same shall or may be received for delivery from time to time by Continental, but subject to the limitations hereinafter in this agreement contained, and Continental undertakes and agrees upon the delivery thereof to pay to Blanding the purchase price thereof, and Blanding covenants and agrees that during the life of this contract that it will not sell or offer for sale any vanadium pentoxide unless and until Continental shall give notice that it will not accept de-

(Testimony of Hayward L. Bigler.)

livery of the same and then only upon the terms and conditions hereinafter in this agreement more particularly provided."

Now, in his letter to Mr. Leir of March 24, which is also part of this agreement and which is written to state Blanding's position in respect to this contract, Mr. Milenski states:

"In Paragraph I of your contract, the recital is 'Continental undertakes.' Throughout this contract we notice that 'Continental undertakes' and in most instances 'Blanding agrees.'

"Paragraph I also states that you will receive delivery of the entire output of vanadium as the same may be received from time to time for delivery. This is definitely objectionable, and we insist that you agree to take our entire output up to 50,000 pounds of V O contained. Of course, at the present time we can only make about 15,000 pounds per month and as per our conversation with you in Grand Junction, we realize that we will need financial assistance to increase the output above 15,000.

"Paragraph I is further objectionable in that the privilege is left with Continental to give notice that it will not accept delivery. If Continental would not accept delivery, we could only sell upon such terms and conditions as you have set forth. We believe the contract should be a contract in which you [1910] would unconditionally agree to buy and we agree unconditionally to sell. However, if you would desire or need some arrangements to

(Testimony of Hayward L. Bigler.)

cease buying, we believe that at least six months' notice should be given. Of course, some other arrangement might be worked out for your protection in the event the market should decline to the point where you could not accept. The suggestion of six months' notice is purely arbitrary and three months might be sufficient."

Do you recall that clause in the proposed contract? A. Yes.

Q. And reaction to it? A. Yes.

Q. Then Paragraph IV says:

"The price of one dollar ten per pound vanadium pentoxide is based upon two percent sodium Na_2O, and such price will be increased or decreased for any sodium Na_2O above or below the two percent with pro rata adjustment for fractions."

Now, had you ever been penalized for any excess sodium oxide over two percent in your product before?

A. It had never been mentioned at any time.

Q. And did you at this time have an analysis made to determine what the sodium content was of your oxide? A. Yes, we did. [1911]

Q. And how much was it?

A. I think the average was between six and seven percent on all previous shipments that we had retained samples from.

Q. So that penalty for any sodium oxide over two percent would have materially affected the price that you had received under this proposed contract, is that correct? A. Yes.

(Testimony of Hayward L. Bigler.)

Q. Now, Mr. Milenski in respect to that paragraph says:

"As to Paragraph IV in which you recite the two percent sodium oxide, it was our understanding that this was to be based on sodium *instead of* oxide, and we now suggest that the minimum sodium content be based upon our average sodium content in the fused black, which we have made in the past. We believe that we can hold the sodium to a minimum. However, we desire to ascertain what the sodium content was in our former production before we commit ourselves to hold to an agreed minimum. After we have agreed upon the minimum, the pro rata adjustments either upward or downward could easily be arrived at. In this connection we submit that there is nothing in the proposed contract which clarified the adjustments which should be made."

Now, subsequently the exhibit shows a letter was received by Blanding Mines from Continental Ore signed by [1912] Mr. Leir:

"We are in receipt of your wire of March 24, and after considering all angles, we feel that at the present time it would not seem advisable for us to enter into a contract as suggested by you without the framework of an agreement as outlined in the draft we sent you. We hope that you will understand our position. We believe that a straight purchase contract does not do justice to the general situation which should be covered by

(Testimony of Hayward L. Bigler.)

the agreement which we now have under discussion.

"We trust that in the near future you will be able to clarify the points which you say need additional thought. Looking forward to hearing from you in this respect, we are,

"Yours sincerely, Continental Ore."

The Court: Did you finally enter into a contract with Continental Ore?

A. No, we didn't.

Mr. Holland: The wire of March 24 to which this refers, I would like to put in evidence.

Mr. Alioto: May we see it?

(Between counsel.)

Q. (By Mr. Holland): Do you know who sent this wire, Mr. Bigler? [1913]

A. It is my handwriting in pencil on the bottom. I presume that the wire was actually sent by Mr. Milenski after he and I discussed it.

Mr. Alioto: We have no objection, on that identification.

(Wire March 24 to Continental Ore from Milenski received in evidence and marked Defendant V's 2-L.)

[See Book of Exhibits.]

Mr. Holland: This is a wire to Henry John Leir, Continental Ore Company:

"Contract received. Some points need clarification. We suggest that while these points are being discussed that you agree by letter to purchase our entire output up to 20,000 pounds vanadium pent-

(Testimony of Hayward L. Bigler.)

oxide per month for a period of nine months at a price of $1.10 per pound contained of 85% grade or better less carload freight Utah shipping point to New York. Letter follows."

And there is some writing in pencil, which is difficult to read. I will let Mr. Alioto read it if he wants to.

Q. That was the wire, was it not, in which the letter of March 24 that I have just read was in answer to? A. I believe that is right.

The Court: That is the letter in which you raised certain objections to the contract?

A. That is right. [1914]

Q. (By Mr. Holland): Now, as you stated, I believe, Mr. Bigler, you did not enter any agreement with Mr. Leir at this time, is that correct?

A. That is correct.

Q. Did you continue to operate the mill?

A. Well, as I recall it, this was in March of '44, the Metals Reserve ore-buying program had ceased, the mill had been idle there for several months, and we began in March to recondition the mill and make a few improvements and changes, and exactly on what date we resumed production, I am not sure, but it was in March or early in April, latter March or early April that we resumed the operation actually.

Q. And how long did you operate?

A. Oh, I would say, as I recall it, it was less than two months or not to exceed two months.

Q. And why did you shut down?

(Testimony of Hayward L. Bigler.)

A. We weren't able to negotiate any kind of a suitable market and find a satisfactory outlet, and our cost was so high that the coverage was not too good, we just decided it was economically unfeasible for us to try to operate the mill and we would be better off to shut it down than to continue to lose money.

Q. If you had been able to negotiate a contract with Continental Ore, would you have continued to operate the mill?

A. Well, if we had been able to negotiate a contract [1915] with Continental Ore at a satisfactory price——

Q. At $1.10?

A. Yes. We thought we could operate at $1.10. As I recall it, we estimated our costs, after the payments of rental to the Defense Plant Corporation, to be somewhere in the neighborhood of a dollar a pound.

Q. Now, I believe by the time you shut down you had produced about 12,000 pounds of oxide, is that correct?

A. I believe that's about correct.

Q. And did you offer that oxide to Mr. Leir?

A. Yes.

Q. Did he buy it? A. No.

Q. State, if you can, a little more fully just what happened in respect to that transaction.

A. He wanted us to ship a small quantity and we didn't want to make shipments in small quantities because of the transportation factor, and we

(Testimony of Hayward L. Bigler.)

figured that if we could not negotiate a contract to take our entire output from time to time as we saw fit to ship it at a satisfactory price, there was certainly no object in operating the mill.

Q. Mr. Bigler, the highest price you charged for vanadium oxide during March of 1942 was $1.10 f.o.b. mill paid by V.C.A., is that correct?

A. That's right. That's the highest price that we ever [1916] received during the period from '41 on.

Mr. Holland: We offer at this time in evidence the O.P.A. general price regulation adopted April 28, 1942, to take effect May 11, 1942.

Mr. Alioto: No objection.

The Court: Can you stipulate how long that was in effect?

Mr. Alioto: Yes. I will take Mr. Holland's statement on that, if your Honor please.

Q. (By Mr. Holland): How long was this in effect?

Mr. Archer: April '48.

Mr. Holland: Until April '48?

Mr. Archer: '46, it was. This was in effect until November 1943 exhibit which I have put in, which had the specific regulation——

Mr. Neaher: It superceded——

Mr. Archer: Just the same prices continued then until 1946.

Mr. Alioto: Do you tie it into the 1946 election? I was wondering what connection the O.P.A. with the 1946 elections.

(Testimony of Hayward L. Bigler.)

We will stipulate it went up to the 1946 elections.

Mr. Holland: Will you also stipulate, Mr. Alioto, that this covers vanadium oxide, this regulation?

Mr. Alioto: We will stipulate that the document covers what it says it covers. If you have another document covering vanadium oxide specifically, then I think it ought to go in.

Mr. Holland: This is the statement of considerations for Regulation 489 which we offer in evidence in conjunction with this exhibit.

Mr. Alioto: What is the source of this document, Mr. Holland? May I inquire what is the source of this document?

Mr. Neaher: That confirms the fact that this does apply to ferro-vanadium. If you are willing to stipulate, we don't need the document.

Mr. Alioto: What is the source of the document?

Mr. Neaher: That is the government which was attached to the other exhibit.

Mr. Alioto: Is this issued by the government?

Mr. Neaher: Yes.

Mr. Alioto: I have no objection to this going in then, if your Honor please, none at all.

(Price regulations admitted into evidence and marked Defendant V's Exhibit 2-M.)

[See Book of Exhibits.]

Mr. Holland: That is all.

The Court: What happened to the mill, what did you do with the mill?

A. The mill, in '44, after we shut it down we

(Testimony of Hayward L. Bigler.)

turned it back to the Defense Plant Corporation.

The Court: That is the government?

A. Right. See, they built—rebuilt the old mill or they built a new mill for us after the fire in June in 1942.

The Court: You had no further control over it?

A. Well, we had the operation of it but the title to the mill itself remained with the Defense Plant Corporation, and if we had had operated it sufficiently long to pay out at so much per pound for the product, we would have eventually acquired title to it, but we didn't operate sufficiently long, it was impossible for us to operate to make a profit. We would have been broke and badly in debt if we had continued to try to operate that mill.

The Court: And when was it you determined to give it back to the government?

A. It was in the latter part of '44, some time after July 1st, and I don't remember the exact date, your Honor.

The Court: Very well. You can cross-examine.

Cross-Examination

Q. (By Mr. Alioto): There came a time when V.C.A. made some kind of a deal with Garbutt, didn't there?

A. Are you referring to the acquisition of the claims?

Q. Yes. A. Yes.

Q. And after that they gave you a little trouble, didn't they? [1919] A. Who?

(Testimony of Hayward L. Bigler.)

Q. Garbutt. After he made his deal with V.C.A., he gave you a little trouble, didn't he?

A. Yes.

Q. He put a little pressure on you?

A. What do you mean now, "a little trouble"?

Q. Well, he charged you with bad faith, among othe things, after he made his deal with V.C.A., didn't he?

A. That's right.

Q. Sure. And he tried to close you down, didn't he?

A. No, he didn't try to close us down.

Q. He sued you, didn't he?

A. He sued us.

Q. And he asked for an amount of money which had he won would have closed you down?

A. But his suit was based on asking us to pay for something that we had already paid for.

Q. All right. And this happened only after he made his deal with V.C.A., didn't it?

A. May I go a little further?

Q. Yes, you may say anything you want, Mr. Bigler.

The suit that Mr. Garbutt filed against us was thrown out of the District Court in Salt Lake City.

Q. Yes?

A. The judge that heard the appeal, sent down an order [1920] that it should be heard, there should be conducted a trial, and we defeated Mr. Garbutt

(Testimony of Hayward L. Bigler.)

in the trial. It was appealed again and we defeated him in the appeal.

Q. Yes.

A. Is that conclusive?

Q. Yes. And I congratulate you for doing that, for winning over Garbutt, because you should have won over Garbutt, because the claim of bad faith he brought against you was false, Mr. Bigler. But the fact remains he did not bring that claim and try to close you down until he made his deal with V.C.A., isn't that right?

A. Well, that is right.

Q. And didn't you tell Mr. Leir at the hotel in Grand Junction that V.C.A. and Garbutt were putting tremendous pressure on you?

A. I don't recall.

Q. And didn't you also tell him at that time that you were looking to an independent supply because you knew that V.C.A. would put you out of business if they continued?

A. That I was looking for an independent supply?

Q. Yes.

A. I wasn't looking for an independent supply of anything.

Q. An independent outlet, I mean.

Q. (By the Court): Did you make that statement to Leir?

A. It is probable that we did. I don't recall. Because we were definitely looking for any advantageous outlet we could get at any time.

(Testimony of Hayward L. Bigler.)

Q. (By Mr. Alioto): Let us get the actual chronology of the way this thing [1921] developed. Up until toward the end of 1941 you were selling your product to the Continental Ore Company, and you were very much satisfied with the sales price you were getting?

A. No, we were not satisfied with the sales price we were getting or we would not have been out looking for a better market.

Q. What was the sales price you were getting?

A. About $1.00 to $1.02, less commission.

Q. And then he offered you $1.05, didn't he?

A. I don't recall the progressive stages in which the price was increased.

Q. And at the time you got that offer of $1.05 you said, "We particularly like the sound of that $1.05," didn't you?

A. What is the date of that?

Q. Let me show you a letter of November 19, 1941, which indicates, Mr. Bigler, that you went out to see some football game in Denver, but aside from that will you be good enough to look at the last two paragraphs of that letter?

The Court: You need not tell how the game came out.

Mr. Alioto: I just hope your team won, Mr. Bigler.

A. Mr. Milenski wrote the letter. It is his signature.

Q. (By Mr. Alioto): Yes, we have had a lot of letters by Mr. Milenski in evidence. [1922]

(Testimony of Hayward L. Bigler.)

I will offer this in evidence at this point.

Did you see this?

Mr. Holland: Yes. Go ahead.

(The letter referred to was thereupon marked Plaintiffs' Exhibit No. 156 in evidence.)

Q. (By Mr. Alioto): Incidentally, Mr. Milenski is living, isn't he? A. Yes.

Q. He is in Cortez, Colorado, today?

A. Right.

Mr. Alioto: November 19, 1941:

"Upon my return I find that Bigler has sauntered off to Denver to see a football game and will return on Saturday. As we pay a royalty to the owner of the claims, I have advised him of your offer, and will undoubtedly hear from him by the first of the week. The product that we have ready for shipment is molded and not ground. We would much prefer not grinding it as it will take additional equipment which we are not particularly anxious to buy. However, we might make some arrangement to grind it if absolutely necessary.

"We particularly like the sound of that $1.05.

"With best regards,

"Dan Milenski."

And that is dated November 19, 1941. [1923]

Q. (By Mr. Alioto): Now then, shortly thereafter Mr. Leir, as you already testified, actually offered you $1.20 f.o.b.? A. Shortly——

Q. Blanding? A. No, not shortly.

Q. Well, within three months?

(Testimony of Hayward L. Bigler.)

A. Well, what is the date on that?

Q. November 19, 1941.

A. I don't believe so.

Q. We will get the exact date in a moment, but let me ask you whether you did not tell the Continental Ore Company at the time that Garbutt was pressuring you to give your output to V.C.A.?

A. I had never told Mr. Garbutt that.

Q. Did Mr. Milenski tell him?

A. Well, the correspondence will have to stand on its own on that.

Mr. Alioto: Where is 131?

Q. (By the Court): Did you make the statement to Mr. Leir contained in the question?

A. What statement was that, your Honor?

Q. The question that you were being pressured by Mr. Garbutt—whatever his name was—to sell—

A. Frankly, I don't think I ever made such a statement to Mr. Leir, because I have never had any conversations with Mr. Leir other than the one we had at Grand Junction. Mr. Milenski talked to him on the phone, and I can't remember ever talking to Mr. Leir other than the time I met him in Grand Junction. I had plenty of conversations with Mr. Garbutt, because I conducted most of the negotiations with Mr. Garbutt.

Q. (By Mr. Alioto): Let me show you a document dated January 9, 1942, already in evidence, which reads as follows:

(Testimony of Hayward L. Bigler.)

"Apex Smelting Company.

"Gentlemen:

"At the advice and recommendation of the owner of our claims it will be necessary for us to dispose of our product here. We regret very much that we will be unable to deal with you.

"Very truly yours,

"Blanding Mines Company,

"By Dan Milenski."

I take it that Mr. Milenski was authorized to send that letter to the Apex Smelting Company, wasn't he?

A. I think he was, yes.

Q. Now, the owner of the claims referred to in this letter is the same Mr. Garbutt who sued you?

A. That is right. [1925]

Q. As previously stated? A. True.

Q. When was it that you first received any intimation that Mr. Garbutt and V.C.A. were dealing with each other?

A. I can't be sure of the date.

Q. Wasn't it right in the beginning of 1942, just about the same time? A. Probably.

Q. As a matter of fact, the formal contract between them was dated April 1st of 1942, was it not?

A. I don't know. I never did see the contract.

Q. Whatever happened to the files of the Blanding Mines?

A. Blanding Mines Company is a dissolved and liquidated corporation now. The last of the files that I knew of, they were left in Durango.

(Testimony of Hayward L. Bigler.)

Q. Who picked them up, do you know?

A. A lot of them were lost in Malen Wilson's office in Salt Lake City at the time of that trial. Most of the rest of them were subpoenaed in a Grand Jury investigation in Denver.

Q. Where are they now?

A. I haven't them.

Q. Did the government send them back to you?

A. They sent back a part of them.

Q. Where are they now? [1926]

A. In Durango, I presume.

Q. Where, in Durango?

A. Probably in Fred Brinker's office.

Q. And Fred Brinker works for what company?

A. The Vanadium Corporation of America.

Q. Yes. Do you have the contract between yourselves and Mr. Garbutt?

Mr. Holland: We have not been able to find it here. We will look for it this noon. I am sure we have a copy of it.

Q. (By Mr. Alioto): That lawsuit alleged that shortly after the V.C.A. made this deal with Garbutt, that you were aware of it and were informed about it. That is correct, isn't it?

A. That is right.

Q. And you knew shortly in the beginning of 1942 that V.C.A. had an interest in these claims with Garbutt?

A. That is right. But may I add one thing? That deal was made with our contract in full force and effect, and in good standing.

(Testimony of Hayward L. Bigler.)

Q. Yes.

A. V.C.A. recognized it, and so did Frank Garbutt.

Q. When was it that Garbutt first threatened to sue you for bad faith? Do you recall the date?

A. No, I don't. It was late—— [1927]

Q. In 1942, wasn't it, the same year?

A. It was in the fall of 1942, I believe.

Q. Let us see if we can't get a chronological picture of V.C.A.'s involvement with Garbutt, and then what happened to you.

How much of an interest did V.C.A. take from Garbutt, do you know?

A. I have never seen the contract, so I have no knowledge whatever of its contents.

Q. Under your contract you had to pay a certain royalty, or a certain interest, a percentage interest, to Garbutt, didn't you?

A. That is right.

Q. Now, that contract is one of the papers, I take it, that Mr. Brinker of the Vanadium Corporation of America has?

A. I presume it is still in the files, that we have a copy of it. We should have.

Q. Do you have that contract here in San Francisco?

Mr. Holland: I will look for that.

Mr. Alioto: Thank you very much.

Q. (By Mr. Alioto): Under that contract part of your net profits had to go to Garbutt?

A. That is right.

(Testimony of Hayward L. Bigler.)

Q. Now, there came a time when V.C.A. succeeded to [1928] Garbutt's interest in that contract, so then part of your profits had to go to V.C.A.?

A. No, because that contract was negotiated, and that was all stricken.

Q. What was stricken?

A. The portion of it that stated that V.C.A. was to participate in our profits, as I recall.

Q. About what time was that stricken? Was it after V.C.A. got into the picture?

A. It was a revision of the Garbutt contract.

Q. Made when?

A. After V.C.A. got the claims.

Q. So there was a period of time when V.C.A. had Garbutt's interest in your profits, isn't that right? A. That is right.

Q. And that period of time began at least in April, 1942, didn't it?

A. No—well, I couldn't say, I couldn't say. The dates are not a part of my knowledge at all.

Q. Let me call your attention to the case of Garbutt against the Blanding Mines, and to the statement:

"According to the complaint on May 4, 1942, Garbutt assigned his right, title and interest in the contract to the Vanadium Corporation of America, and thereafter the Vanadium Corporation of America was [1929] entitled to all the benefits thereunder." A. That is right.

Q. Does that refresh your recollection that that was the date on which it happened?

(Testimony of Hayward L. Bigler.)

The Court: Wouldn't that naturally follow, if they bought the claim? Wouldn't they step into the shoes of Garbutt?

Mr. Alioto: Yes, there is no question about that, if your Honor please. I am simply trying to fix the date. We did not hear anything about this on the direct examination, and I want to bring out V.C.A.'s involvement with Garbutt. I want to fix the date. I have no doubt about the law of assignment.

Q. (By the Court): What is the date?

A. This is May 4th, there, I believe.

Is that right?

Q. (By Mr. Alioto): Does that refresh your memory that that is the date on which it happened?

A. I wasn't there and I have never seen the document, Mr. Alioto.

Q. Weren't you informed about it, Mr. Bigler?

A. We were notified that the Garbutt claims had changed hands. [1930]

Mr. Holland: We will get that for you, Mr. Alioto.

Mr. Alioto: Thank you.

Q. (By Mr. Alioto): What was that you just said?

A. We were notified that the Garbutt property had changed hands and that V.C.A. was the purchaser.

Q. And thereafter you dealt with V.C.A.?

A. We were also notified that our contract was in full force and effect and in good standing.

(Testimony of Hayward L. Bigler.)

Q. Yes. But thereafter you dealt with V.C.A.?

A. That is right.

Q. (By the Court): And that is when you secured a modification of the contract?

A. That is right.

Q. (By Mr. Alioto): In other words, it was V.C.A. that modified the contract with you?

A. That is right.

Q. Do you know how much of Garbutt's interest V.C.A. had acquired?

A. I have no reason to know anything about the dealings between V.C.A. and Garbutt.

Q. I am just asking. V.C.A., when they took over Garbutt's interest, became your lessor, didn't they? [1931] A. That is right.

Q. In other words, you were dealing with Garbutt in connection with what have been called the Cottonwood claims. That is correct, isn't it?

A. That is right.

Q. Approximately where on this map are these Cottonwood claims located?

A. They are about 15 miles southwest of Blanding on Cottonwood Wash.

Q. That is right about in the area I am indicating. Blanding is indicated to be in the Monticello Mining Area, and they were south of Blanding? A. Yes, south and west.

Q. The mill was built around those claims, was it not? A. It was built on the claims.

Q. Let us get a little history of that mill so

(Testimony of Hayward L. Bigler.)

we will lead up to this picture as to when V.C.A. entered the picture.

In 1937 that mill was built, was it not, as a 10-ton mill, built on these Cottonwood claims?

A. I don't know; I had nothing to do with it in 1937.

Q. Well, the mill, in any event—you came in as a creditor, isn't that a fact, Mr. Bigler?

A. In 1938.

Q. Yes. What kind of a creditor were you? What were you selling to the mill? [1932]

A. Petroleum products, fuel oils and lubricants.

Q. And the operator of the mill was a man named Howard Kimmerle, is that correct?

A. H. J. Kimmerle, Sr.

Q. H. J. Kimmerle, Sr. And you sold him petroleum products. And there came a time when he could not pay his bills, so you took over?

A. No, I didn't take him over.

Q. Or you and a group of creditors took over the mill?

A. No, I didn't take him over.

Q. What happened?

A. I was eventually paid by an assignment that was subsequently made by Mr. Kimmerle to me when he wanted to resume operations. It was a percentage of his proceeds. And my bill was paid in full.

Q. I thought you testified on direct examination that there came a time when you took over the operation of the mill for the benefit of the creditors.

(Testimony of Hayward L. Bigler.)

A. I was asked by the creditors to take over the operation and manage it for the benefit of the creditors and see if it was possible for them to recoup some of their losses.

Q. Fine. That is all I had reference to, Mr. Bigler; not anything else.

Do you remember approximately when it was that you took over? [1933]

A. In 1939, about September, as I recall.

The Court: We will recess at this time for ten minutes.

(Short recess.)

Q. (By Mr. Alioto): Mr. Bigler, I want to make something very plain in the record before going further, particularly in view of what I perceive to be a reaction on your part. I did not mean to imply that we believe the Garbutt charges of bad faith against you were true. We believe to the contrary, that Garbutt charges were false.

What I wanted to point out there was after an association with V.C.A., certain things happened in this case.

Now then, I think we were at the point where you were telling us you were a creditor of Mr. Kimmerle and there came a time when you took over the operation of the mill for the benefit of the creditors.

Do you recall, Mr. Bigler, approximately when that happened?

A. Approximately when we took over and began the operation for the benefit of the creditors?

(Testimony of Hayward L. Bigler.)

Q. Yes, sir.

A. It was late in September of '39 or early in October that we started the mill up on that phase of the operation.

Q. At that time who operated the mill besides yourself, Mr. Bigler?

A. Howard Kimmerle was in the mill all of the time, I was responsible for the operation, Mr. Usher was custodian of the funds—conservator.

Q. Now then, you tried to operate for the benefit of the [1934] creditors during that period of time, didn't you?

A. We did operate for the benefit of the creditors.

Q. All right. Do you recall that during that time or just prior to that time that the United States Vanadium Company tried to buy the mill from you?

A. I knew nothing of that whatever.

Q. Did Kimmerle ever tell you that the United States Vanadium Company—— A. No.

Q. ——tried to buy the mill from him?

A. No.

Q. Now then, that operation for the creditors continued up until just before March of 1940, that is correct, is it not? A. I believe, yes.

Q. Then in March of 1940, you and Mr. Milenski formed some kind of a financial organization for the purpose of taking over the mill, is that right?

A. No, we made a trip to Los Angeles in the

(Testimony of Hayward L. Bigler.)

early part of '40, in the spring, March or April, I believe, and discussed with Mr. Garbutt the possibilities of a contract directly with him.

Q. Who made the trip? A. Pardon?

Q. Who made the trip? [1935]

A. Mr. Milenski and myself.

Q. And you conferred with Mr. Garbutt?

A. I believe Howard Kimmerle, Jr. went with us on that same trip.

Q. When you made this trip to confer with Mr. Garbutt, you and Mr. Milenski had agreed, had you not, that the prospects for a profitable operation were good?

A. Well, Mr. Milenski was not at all familiar with any phase of our operation for the benefit of the creditors, and it was after that that I had discussed it at all with Mr. Milenski, and he at that time was acting as my attorney and I only took him along to California with me to discuss the matter with Mr. Garbutt.

Q. Well, did there come a time, though, when you made a deal with Mr. Garbutt, and that was about March of 1940?

A. Well, it was about March; it might have been April or the first part of May, even, it was the early part of 1940.

Q. In any event, you secured a lease from Mr. Garbutt, did you not? A. Right.

Q. Just give us the essence of that transaction with Garbutt, what was the deal?

A. It was a long-drawn out, complicated agree-

(Testimony of Hayward L. Bigler.)

ment and it provided for a three percent royalty based on the net selling price f.o.b. the mill at Cottonwood. [1936]

Q. Net selling price of the ore, is that correct?

A. The net selling price of fused vanadium oxide.

Q. All right. Three percent based on the selling price of fused vanadium oxide.

A. And that was based on 100 percent of the V_2O_5 contained in the ore, not on the recovery.

Q. Yes. And how long was this to last, how long a deal did you make?

A. It was one of those rather indefinite deals, that could just run on. I forgot—I don't even believe there was a termination date in it.

Q. At the time you made this deal, was the mill in condition to be operated immediately?

A. No.

Q. Did you undertake to do anything to that mill?

A. We installed several pieces of new equipment, the main one being the roaster.

Q. At the time you made this deal with Mr. Garbutt, you must have believed that it was a good business transaction? A. Yes.

Q. Is that correct? A. Yes.

Q. You felt that the market conditions were such at the time that it was well for you to make this kind of a deal?

A. Well, because of the fact that we made a profit for [1937] the creditors in the three months

(Testimony of Hayward L. Bigler.)

operation or four months operation, whatever it happened to be, all things being equal and the future looked fairly stable at that time we assumed that we would be able to operate for ourselves at a profit, also.

Q. During this period of time that you made a profit by which you were able to pay something to the creditors, to whom were you selling your product? A. Continental Ore.

Q. And your relations with Continental Ore were perfectly satisfactory, weren't they?

A. They paid for everything that we shipped to them.

Q. As a matter of fact, they had some kind of an arrangement where they put the money in the bank before the product was shipped?

A. We were allowed to draw 80 percent, I believe, or 75 percent, or something like that, of the estimated value in the shipment.

Q. And that was based upon the money having been put there in advance, isn't that correct?

A. I don't remember the circumstances on that. That's very vague in my mind and the records on that old operation were not preserved at all.

Q. In any event, you didn't have to wait for your money until the material arrived some place?

A. No.

Q. Do you recall what price Continental paid you at the time that you were operating for the creditors?

(Testimony of Hayward L. Bigler.)

A. It was approximately a dollar a pound plus or minus—I could not be too sure of it.

Q. It was the top of the market, at any event, wasn't it, Mr. Bigler?

A. Well, it was apparently the best price that we could get at that time.

Q. Did you try to get a better price from the United States Vanadium Company?

A. I don't know that we even contacted the United States Vanadium Company.

Q. Did you try to get a better price from the Vanadium Corporation of America?

A. I don't think we even contacted—in fact, if you will realize that at that time I was only directed to manage that operation as far as the mining and milling and the shipping and we pursued the same policy that had been followed by H. J. Kimmerle, Sr. Assuming that probably if we continued to operate that mill for the benefit of the creditors sufficiently long to recover for them all of the debts, that the mill would probably be turned back to Mr. Kimmerle.

Q. Why wasn't it turned back to Mr. Kimmerle?

A. It broke down completely, and there were approximately [1939] 70 to 75 percent of sufficient funds to repay the creditors in full, and the creditors' attorney asked us to turn that over to him and not spend any of it in repairing the mill.

Q. Well, then, you paid off the creditors three-quarters of their claims?

(Testimony of Hayward L. Bigler.)

A. I didn't pay them at all. I turned it over to their attorney and he distributed the funds.

Q. I mean, you turned over to somebody approximately three-quarters of the claims, is that right?

A. We turned over sufficient funds to take care of approximately three-quarters of the claims.

Q. Now then, is it not a fact that you also got as high as $1.30 for some of the oxide you sold to Continental at that time?

A. I don't know. As I told you, I didn't recall. It is possible, because that was during the period prior to the time that there was an embargo on vanadium oxide and it was probably sold on a foreign market.

It seems to me that correspondence I have had or read after that time with Continental Ore referred to a foreign market.

Q. Now then, in any event, when you——. Incidentally, who was a man named Usher? There is a statement by Mr. Milenski that the vanadium mines at Blanding formerly operated by H. J. Kimmerle, he says in Plaintiffs' Exhibit 131, formerly [1940] operated by H. J. Kimmerle and later by Bigler and Usher—who was Usher?

A. He was the banker in Cortez who handled the funds. Designated to handle the finances on this and receive the funds and deliver them at the discretion of the attorney for the creditors.

Q. In other words, he helped you during that creditor period? A. That's right.

(Testimony of Hayward L. Bigler.)

Q. Now then, however, beginning in 1940, when you and Mr. Milenski took over, you were operating for your own account at that point, were you not?

A. Yes. That is right.

Q. Who was in that transaction, just you and Milenski? A. No, Art Kimmerle, Jr.

Q. And how were the shares split at that time, Mr. Bigler?

A. I don't recall. We eventually formed a corporation.

Q. In any event, you did secure a lease from Garbutt. Now, what was done on the mines themselves—the Garbutt claims——.

Now, what about the mill itself, did you make some kind of an arrangement to operate that mill?

A. The lease on the property included all facilities thereon.

Q. Now, then, from the period you got into production—about July of 1940, did you not?

A. Approximately then.

Q. At the time you got into production, you got in touch with Mr. Leir, Continental Ore Company?

A. That's correct. I believe Mr. Milenski probably handled the correspondence in connection with that.

Q. And between 1940 and January of 1941 you shipped your materials to the Continental Ore Company, did you not? A. Correct.

Q. Now, then, in January of 1941, do you recall Mr. Leir telling you that he had heard that the

(Testimony of Hayward L. Bigler.)

Vanadium Corporation of America had secured an option on those claims?

A. No, I don't recall that. What is the date that you mentioned there?

Q. January '41, or, rather '42—I am sorry.

A. No, I don't recall that. I think it was about that time that the Vanadium Corporation of America approached us about buying ore and we negotiated a contract to sell them the finished product. And they even discussed buying the claims. We told them that we didn't own the claims.

Q. Now, can you fix the approximate time when that happened, Mr. Bigler?

A. I think that it—as I said, it was approximately that time, maybe late in the fall of 1941, that some representative of the Vanadium Company called on us asking if we would be [1942] interested in selling the claims.

Q. Who was that representative? Was it a Mr. Kett? Or a Mr. Viles?

A. I believe it was Mr. Kett, and at a subsequent — subsequently Mr. Kett and another — I believe he was Mr. Bransome — and Mr. Kett came to us at one time in Cortez, and I told him that ——

Q. Excuse me, before you tell us what you told them. Where was the meeting held in Cortez, do you recall?

A. I don't know whether it was held in my office or Mr. Milenski's office, one of the two.

Q. Who was present at that meeting?

A. Mr. Milenski and myself.

(Testimony of Hayward L. Bigler.)

Q. Mr. Kett and Mr. Bransome?

A. I'm not sure whether Mr. Bransome and Mr. Kett were both present at that time or not.

Q. But there were occasions when you saw both Kett—when you saw Mr. Kett and Mr. Bransome, you saw both of them at some time, is that it?

A. Yes. And I don't recall whether it was together or separate.

Q. All right. Now, whether together or separately, what was the substance of the conversation between you and Mr. Kett and Mr. Bransome?

A. We were approached to find out if we would be interested in selling the claims.

Q. And at that time were you selling the vanadium oxide to the Continental Ore Company?

A. We were not in production. That was in the fall of '41. We were in experimental operation and didn't have production steady at that time, we had nothing to sell yet.

Q. In the fall of '41? A. Right.

The Court: What did you say in that conversation?

A. I told either one or both of them, whichever it was, that we did not own the claims, that we only had a lease on them, and, as I recall it, they asked if it would be all right if they talked to the owner of the claims. And I said, "We have got no objection to your talking to the owner of the claims, as long as you recognize our leases being in full force and effect." [1944]

Q. (By Mr. Alioto): Just before this conversa-

(Testimony of Hayward L. Bigler.)

tion you folks had remodeled your mill, had you not?

A. We were in the process of completing the remodeling and testing it at that time, as I recall.

Q. You figured, then, you were producing about 5,000 pounds per week?

A. We hoped to. Whenever we figured, we oftentimes figured wrong.

Q. That happens. That happens all the time, Mr. Bigler.

I would like to read, so we can get a continuity to this testimony, the letter of October 31, 1941, which is part of Plaintiffs' Exhibit 131. It is a letter from Mr. Dan Milenski to the Apex Smelting Company. It states as follows:

"In response to a request of Mr. Henry J. Leir we wired you as follows: We are in no hurry to start shipment. We are producing approximately 25,000 pounds per week. Production undoubtedly will double in 1942. Letter follows."

Mr. Holland: Is that 2,500, Mr. Alioto?

Mr. Alioto: 2,500. Did I say 25,000?

Mr. Holland: Yes.

Mr. Alioto: I am sorry (reading): "We are producing approximately 2,500 pounds per week. Production undoubtedly will double in 1942. Letter follows. [1945] Our mill has been completely rebuilt and we have a centralized power plant. The bugs have been removed much better than expected. As yet we are not trying to crowd the mill, or even put it up to the production that it will take. We

(Testimony of Hayward L. Bigler.)

have gathered considerable data and are expecting we will soon be producing over 5,000 pounds per week. Our product is over 85 percent pure, i.e., V_2O_5. Your quotation of $1.05 Chicago is below other offers which we have received, and we are not disposed to sell for that price with better offers available. We suggest that if you desire, that you submit a new offer. We might be agreeable if price is satisfactory to contract for shipments at stated intervals of certain size. The writer plans on being in Chicago somewhere around November 10th and will endeavor to call on you and discuss the situation."

Q. (By Mr. Alioto): I take it you conferred with Mr. Milenski at or about the time that letter was sent, Mr. Bigler? A. I presume so.

Q. Do you recall who had offered you a higher price than $1.02 at the time?

A. A higher price than what?

Q. Than $1.02. [1946]

A. What is the date of this?

Q. This is October 31, 1941.

A. Well, I don't know that we had a firm offer at that time yet, but we were in the process of negotiating with the U. S. Vanadium Corporation, and the Vanadium Corporation of America, and had other correspondence out, and the Vanadium Corporation of America had implied, as I recall it, that our product was up to certain specifications, that they might pay us as high as $1.10 a pound.

(Testimony of Hayward L. Bigler.)

Q. You say they implied it. You mean somebody in their organization?

A. Talked to first, inferring that they would have to get the approval from higher up as to whether or not they would.

Q. Did Mr. Kett or Mr. Bransome tell you that at the time he was negotiating?

A. I don't believe they did. I don't think we ever discussed anything about the price on fused vanadium oxide.

Q. By reference to that letter of October 31st that I have just read, can you fix the approximate time that you had your discussions with Mr. Kett and Mr. Bransome, that reports a certain progress in connection with the remodeling of the mill, and I thought that might help you fix the time when you talked to Mr. Kett and Mr. Bransome?

A. No, I couldn't fix it very accurately. The first negotiations that we had with the Vanadium Corporation of America [1947] at all in connection with the sale of products were in the summer of 1941, when we were tearing out the old roaster and had a batch of clean-up, and there was quite a bit of impure vanadium oxide out of the old roaster, and we asked them for an offer on it.

Q. Who did you ask, do you remember?

A. Well, Mr. Harrison was in charge, and he probably contacted someone in their Naturita office, as I recall it, and they asked for samples.

Q. Yes.

(Testimony of Hayward L. Bigler.)

A. And we sold that product which, as I recall it, ran approximately close to 60 percent.

Q. Yes.

A. In fused vanadium oxide, at a fairly good price—not anywhere near the price of the 85 percent pure stuff, but we got a pretty good price for it and cleaned it up. That was the first negotiations we had. These other negotiations came subsequent to that, when we were approached by them on the purchase of claims, and we contacted them later to sell our 85 percent pure oxide, and at the same time began negotiations in contacting them in the fall of 1941. And I can't tell you exactly when, because a lot of it was done by Mr. Harrison, and done by telephone or personal conversations.

Q. Yes, we understand that. In any event, it was in the fall of 1941 that there were conversations both about buying [1948] your claims and about buying your oxide?

A. We didn't own any claims.

Q. I understand that. Let me rephrase it.

You had conversations with Bransome and Kett about V.C.A. buying the Garbutt claims, and conversations about buying oxide with these other V.C.A. folks took place at or about the same time?

A. I believe so. It was within the same period.

Q. And they offered you at that time how much, do you recall?

A. We began to negotiate on the basis of $1.10 a pound, because we found out that fused acid of that type had a market value of approximately

(Testimony of Hayward L. Bigler.)

$1.10 a pound, and that if we sold for less than that we were not getting its full value.

Q. In any event, in that period of time, when you opened up in October, you still sold to the Continental Ore, didn't you?

A. I don't recall whether we made any shipments in 1941 to the Continental Ore Company or not.

Q. Let us see if we can't be helpful on that.

Do you recall Mr. Milenski said he was going to Chicago, and the next letter is November 14, 1941, in which Mr. Lippa writes to the Continental Ore Company:

"In reply to your letter of November 13th regarding Mr. Milenski, please be advised that we have [1949] arranged to pay them $1.05 Chicago."

And then you will recall Mr. Milenski's letter that I read a little earlier about that $1.05——

A. But it doesn't say anything about any shipment being made, does it?

Q. No, this does not.

A. So I don't know whether there was any shipment made to them at all there.

Q. Do you recall on January 6, 1942, Mr. Leir wrote this letter—and this letter is in evidence—and I think this is continuing the story here:

"Attention: Mr. H. L. Bigler"——

from Mr. Leir:

"We understand that your Blanding Mill and your mining claims (or perhaps only one or the other) are at present under option to the Vana-

(Testimony of Hayward L. Bigler.)

dium Corporation of America. We should very much appreciate your informing us frankly as to whether this information is correct. We hope you will not hesitate to tell us your position in that respect, in view of our long and pleasant relations, and the complete cooperation we have always given you.

"In any case, we wish to say that it is, of course, the tendency of the U. S. Vanadium Corporation and the Vanadium Corporation of America [1950] to firmly establish their monopoly by getting hold of all sources of vanadic acid, so as to impede the operations of their sole competitor, the Apex Smelting Company.

"However, we do not see any advantage to you in lending your facilities to this project. If you will sell out to the Vanadium Corporation at this time, you will only have to pay a lot of taxes, instead of holding onto a continuous business which, in cooperation with us, will be profitable for you for years to come.

"During the war we can pay you a satisfactory price for the acid, and once the war is over we can again obtain for you the higher prices which govern the foreign markets. This would not be the case if you sold out now, or tied up your production with the Vanadium Corporation, because it would be they who would profit by these interesting foreign markets.

"This situation may arise much more quickly than most people think. We do not believe the war

(Testimony of Hayward L. Bigler.)

will last for years and years, as is often anticipated. We think that conditions in Europe, and especially in Germany, are such that the end may come within this year." [1951]

And this is January of 1942 (continuing reading):

"For all these reasons we think it is much more to your advantage to stay independent, and we should like to hear from you in this respect."

I take it when you received this letter, Mr. Bigler, you and Mr. Milenski discussed the type of answer that you would give to Continental?

A. We were not approached by the Vanadium Corporation to sell anything that we had. They were approaching us about buying the claims, and whether or not they pursued that at that particular time or later, I don't know. They might have gone to Mr. Garbutt, then, or they might have waited two or three months, I don't know.

Q. Do you remember discussing the answer to this letter to Mr. Leir? The answer is dated January 9, 1942, which I think I have already read:

"At the advice and recommendation of the owner of our claims, it will be necessary for us to dispose of our product here. We regret very much that we will be unable to deal with you."

Now, the owner of the claims was Garbutt?

A. That is right.

Q. And to whom did you dispose of the product here in January, 1942?

(Testimony of Hayward L. Bigler.)

A. We disposed of the product to the Vanadium Corporation of America. [1952]

Q. At what price?

A. At $1.10 a pound f.o.b the mill in bricks.

Q. You recall Mr. Lippa wrote you back and said:

"We have your letter of January 9th, and we regret exceedingly to note you are compelled to dispose of your material in your district, as we enjoyed doing business with you, and we were looking forward to receiving increasing amounts from you.

"However, should the situation change in the future, we will appreciate it if you will again get in touch with us."

That is Mr. Lippa to Mr. Dan Milenski.

On January 14, 1942, Mr. Milenski writes to the Continental Ore Company:

"Dear Mr. Leir:

"We do not know exactly what our plans will be for the future operations of the Blanding mill as in making these plans we must naturally consider the views of Mr. Garbutt, the owner of the claims, for the reason that through Mr. Garbutt we secure valuable information which is working to our advantage. Our marketing is being handled principally through Mr. Garbutt and we are getting a satisfactory price which is much better than the price offered by Apex. [1953]

"Possibly in the near future we might have reached definite plans for future operations, and if so we will advise you."

(Testimony of Hayward L. Bigler.)

Now, is the statement that your marketing was being done through Mr. Garbutt in January, 1942, a true statement?

A. It was not being done through Mr. Garbutt. We only conferred at times.

Q. Excuse me. May I get the question in this record?

Is the statement made by Mr. Milenski to Mr. Leir on January 14, 1942, that:

"* * * we must naturally consider the views of Mr. Garbutt, the owner of the claims, for the reason that through Mr. Garbutt we secure valuable information which is working to our advantage. Our marketing is being handled principally through Mr. Garbutt * * *"

Was that statement correct, in January, 1942?

A. No; no, it wasn't being handled principally through Mr. Garbutt. We only conferred with Mr. Garbutt from time to time.

Q. Why do you think Mr. Milenski told Mr. Leir that?

A. I didn't write the letter. He wrote it that way. And I think it is a little ambiguous.

Q. Didn't you confer with Mr. Milenski at the time he wrote this letter? [1954] A. No.

Q. In any event, it was perfectly clear at the time the letter was written you were selling to the Vanadium Corporation of America?

A. That is right.

Q. You must have been aware in January of 1942 that the Vanadium Corporation of America

(Testimony of Hayward L. Bigler.)

was in dealings with Mr. Garbutt about acquiring an interest in his claims, weren't you?

A. Well, we might have suspected that they were because of the fact they had approached us to buy the claims.

Q. Mr. Bigler, in just old plain American language, didn't Garbutt tell you you had to sell to V.C.A.? A. He did not.

The Court: You are putting your answer in the same old kind of language, then.

Q. (By Mr. Alioto): Let us look at some, perhaps, un-American language by Mr. Milenski on January 9, 1942 (reading):

"At the advice and recommendation of the owner of our claims, it will be necessary for us to dispose of our product here."

A. This says "advice," doesn't it, "and recommendation"?

Q. Yes. A. Not orders. [1955]

Q. That "it will be necessary for us to dispose of our product here."

Was it necessary, in January of 1942, to do that?

A. No, it wasn't necessary.

Q. But you did it? A. That is right.

Q. Did Mr. Garbutt tell you why he wanted you to sell your output to Vanadium Corporation of America?

A. I don't think Mr. Garbutt ever told me that he wanted me to sell. Knowing Mr. Garbutt as I know him, there was one thing that he was interested in, and that was a dollar, and he would tell

(Testimony of Hayward L. Bigler.)

me to sell that product wherever I could get the best possible net return to me for it.

Q. This language about advice and recommendations, I take it, was not made to you. Was it made to Mr. Milenski?

A. If it was, I don't know of it.

Q. Did you discuss the marketing of vanadium oxide with Mr. Garbutt, or was that Mr. Milenski's business?

A. We discussed such things, and I do not believe that just because that is worded in such a manner that it might be interpreted to be ambiguous—or interpreted ambiguously—that we ever received any orders directly from Mr. Garbutt to sell our product to any one individual or company.

Q. Incidentally, Mr. Milenski, the writer of the letter, is an attorney-at-law, is he not? [1956]

A. That is right.

Q. And he is still practicing in Cortez?

A. That is right.

Q. He is a pretty good attorney, as a matter of fact, isn't he? A. That is right.

The Court: You can't always tell what your lawyer puts in a letter.

The Witness: No, I can't.

Q. (By Mr. Alioto): Of course, in this instance he was not just your lawyer; he was your partner, wasn't he?

A. He was the secretary of a corporation.

Q. He had a financial interest in the deal, didn't he?

(Testimony of Hayward L. Bigler.)

A. Sure he did. But that doesn't mean he can't write a letter ambiguously.

Q. How much of a financial interest did he have, Mr. Bigler, do you recall?

A. No, I do not at that time.

Q. Now then, is it not a fact that in March of 1942 you folks made a deal with V.C.A. under the terms of which two-thirds, or you acquiesced in the deal between V.C.A. and Garbutt under which two-thirds of the Cottonwood claims were released to the immediate possession of V.C.A.—that is, the Vanadium Corporation of America? [1957]

The Witness: What was your question, again, now, please?

Q. (By Mr. Alioto): Let me put it directly: Do you recall in March of 1942 whether or not two-thirds of the Cottonwood claims in which you mined were released to the immediate possession of the Vanadium Corporation of America?

A. They were not.

Q. Do you recall whether or not the Vanadium Corporation of America at that time succeede to Garbutt's rights in the royalty of one-third of the Blanding profits? A. On what date?

Q. In March of 1942. And if the date is bothering you, let me say in or around March of 1942.

A. I didn't even know at that time that the Vanadium Corporation of America was actively negotiating with Mr. Garbutt. The contract was consummated and dated May 4th.

(Testimony of Hayward L. Bigler.)

Q. You suspected it, to use your language, didn't you? A. Why should I?

Q. I don't know.

A. How could they divide up claims that we had the lease on 44 of them without our consent, with our contract in full force and effect?

Q. Let me put it: In May of 1942 you came to the realization, did you not, that Garbutt had transferred his rights [1958] under the lease with you to the Vanadium Corporation of America?

A. That is right.

Q. For one-third of the royalty, was it?

A. For a three percent royalty, and the other provisions that I can't recall the exact wording on, and I wouldn't attempt to try to quote them.

Q. Counsel will be good enough to look for those contracts for us during the noon hour.

Now, after V.C.A. came into possession, and you were aware of the V.C.A. interest in these claims, did you then negotiate another deal with V.C.A.?

A. Yes. [1959]

Q. Was that the subject of a contract?

A. That was a contract.

Q. A written contract?

A. That was negotiated in the latter part of May or first of June.

Q. All right. Now tell us what that deal was, give us just the basic essentials of it.

A. Well, there were a lot of ambiguities in the contract that we had with Garbutt.

(Testimony of Hayward L. Bigler.)

Q. Mr. Milenski didn't draw up this contract, did he? A. Garbutt did.

Q. Okay. A. And——

The Court: Let him answer.

Mr. Alioto: I'm sorry.

A. There were a lot of disputable points in it and we were very unhappy about it. In fact, there had been times when I had tried to get some clarifications in it from Mr. Garbutt and he modified everything by letters stating that we would have no trouble on it as long as we continued our operation as we were and just let the matter ride.

So, when the Vanadium Corporation of America notified us that they were buying, we began negotiations with them. In fact, in the conversation—in one of the earlier conversations we had tentatively stated that there were some of those [1960] claims we considered of no particular value, and we were only operating on a part of them. And they asked us if we would release to them that part of the claims that we had done no exploratory work on and were doing no mining work on.

Q. (By Mr. Alioto): And was that about two-thirds of the claims?

A. Well, it was the worthless part of them, as far as we were concerned.

Q. Was it approximately two-thirds, whether worthless or not, so that my "two-thirds" figure of a while ago didn't come out of the air?

A. Well, it might have been as far as total area is concerned.

(Testimony of Hayward L. Bigler.)

Q. Yes. Okay. And then what else happened, what was the deal that you made?

A. We revised the contract very much to our advantage on the balance of it.

Q. And you gave Vanadium Corporation of America immediate possession of an area at least two-thirds of the claims?

A. Not immediate possession. They agreed to do a lot of core drilling for us on the part that we were reserving to determine whether or not we were satisfied that there was sufficient ore body within that area for us to continue to run our mill on.

Q. Yes? [1961]

A. That was consummated. They did the drilling and we were satisfied with the ore body because the results of the drilling were very favorable.

Q. And then what happened to that two-thirds area?

A. We released it to V.C.A. because we didn't care to operate on it. It was high lime ore and low grade ore that was in there, as far as we were concerned, of no value to us at all.

Q. Okay.

The Court: Well, they owned the property subject to your lease on it?

A. Yes, but we had the lease on all of it, approximately forty claims, or fractions of claims.

The Court: Now, V.C.A. then bought those claims—they bought them from Mr. Garbutt?

A. Yes, sir.

(Testimony of Hayward L. Bigler.)

The Court: So you had a lease——

A. From V.C.A.

The Court: ——on certain claims that you thought were worthless? A. Yes.

The Court: And those are the ones that you released? A. That's right.

Q. (By Mr. Alioto): And later on you say that the [1962] core drilling established the fact that those claims had——

A. I said the core drilling established the fact that the area that we reserved contained sufficient ore to justify the continued milling operation as we hoped to have it continue.

Q. Now then, you wanted to continue with the operation then? A. We did.

Q. And did you? A. Yes.

Q. For how long?

A. The lease ran for 15 years, it ran out last year, and it was never canceled.

Q. Well, a few weeks after you made the deal with V.C.A., the mill burned down, didn't it?

A. That's right.

Q. So that shut you down.

Mr. Holland: You are not blaming us for that?

Mr. Alioto: I don't blame anybody for anything. I am just developing whatever the facts are.

Q. The mill burned down? A. Yes, sir.

Q. And then what happened?

A. We were approached by the Defense Plant Corporation to rebuild the mill and we told them that we didn't have the necessary finances to re-

(Testimony of Hayward L. Bigler.)

build it, and they said "We need the [1963] vanadium production badly * * *"

The Court: Now, that is the government agency?

A. Yes, sir.

Q. (By Mr. Alioto): Yes?

A. "* * * and we will rebuild it for you if we can get everything worked out and are satisfied that the ore reserves are sufficient."

Q. Yes?

A. And so subsequently that mill was built by the Defense Plant Corporation.

Q. Where?

A. On the Cottonwood claims there.

Q. Well, as a matter of fact, isn't this what happened, that you then drew up plans for a new and a larger mill of a 25-ton capacity, is that right?

A. Well, I don't remember the capacity that we proposed to rebuild.

Q. In any event, you drew up plans for a new and larger mill?

A. Mr. Brinker was the construction and metallurgical engineer with us and he prepared all those plans and specifications.

Q. He is the man who is now working for V.C.A.

A. That's right.

Q. And, of course, he is still living? [1964]

A. He started working for V.C.A. just a short time back, relatively speaking, a few years ago.

Q. Yes. All right. Now, anyway, new plans were drawn up. Under the new plans you didn't propose to put the mill in the same place where

(Testimony of Hayward L. Bigler.)

the mill had burned down, did you? You proposed to put it between Cottonwood and a new group of claims on which you had secured an option, isn't that correct?

A. I believe we contemplated that at one time.

Q. What did V.C.A. tell you when they saw those plans?

A. Well, at first they agreed to do it and then they read their contract, and it stated that any mill had to be built on those claims, and they insisted we build the mill on the claims if we were to preserve our contract.

Q. In other words, they told you that they would cancel the lease on you if you built the mill where you wanted to build it?

A. Well, according to the terms of the contract, we would be automatically canceled if we built the mill any place else.

Q. That is what they told you they would do?

A. Yes.

Q. Who told you that?

A. Nobody told me that. It was told to Mr. Brinker.

Q. Who told Mr. Brinker that?

A. Oh, one of the Vanadium Corporation officials. I don't [1965] remember.

Q. Which one? Was it Kett?

A. I don't know.

Q. Mr. Kett, I mean. A. I don't know.

Q. You have no idea at all at this time who it was that said that?

(Testimony of Hayward L. Bigler.)

The Court: He has answered your question, he didn't know.

A. He didn't tell me.

Mr. Alioto: All right.

Q. In any event, you yielded to this and you built a 15-ton mill at Cottonwood? A. Right.

Q. With the help of the Defense Plant Corporation. That's the fact, is it not?

Now, the fire occurred some time in April of 1942, did it not? A. June.

Q. June of '42. And your new mill wasn't completed until March '43, isn't that right?

A. That's right.

Q. Now then, you were visited by a fellow named Mr. Edwards at that point, weren't you?

A. I don't remember. [1966]

Q. Well, at this point now the Metals Reserve program was in effect, was it not?

A. I couldn't say what date that the Metals Reserve program went into effect, I don't recall.

Q. Well, who was running the mill when you opened up, your new mill, in March '43?

A. Brinker was the metallurgical engineer directly in charge of it.

Q. What were you doing in connection with this operation? A. Looking after the mining.

Q. Did you have any other occupation at this time, incidentally, Mr. Bigler? A. Yes.

Q. Or did you devote your full time to this operation?

(Testimony of Hayward L. Bigler.)

A. I devoted probably 20 per cent of my time to this.

Q. To this operation? A. Yes.

Q. And what was your other business at this time?

A. I had my refined petroleum products distributing business.

Q. Distributing whose products?

A. Continental Oil Company.

Q. Continental Oil Company? A. Yes.

Mr. Holland: No relation? [1967]

Mr. Alioto: No relation.

Q. Do you know whether at the time you opened your new mill a man Edwards called at the mill and advised you to stop producing vanadium acid? And instead ship your ore to V.C.A.'s Monticello plant?

A. I am reasonably sure that he didn't.

Q. Did not. Okay. In any event——

A. If he did, I didn't hear about it.

Q. In any event, after you built the mill, you didn't operate it, did you? A. Yes.

Q. For how long?

A. For approximately two months.

Q. And then what did you do?

A. Because of the fact that we were losing money on it, we shut it down.

Q. In other words, in March of 1943 you opened a mill which had been built with Defense Plant funds. Tell me, was it a good mill?

A. And also designed by Defense Plant engineers?

(Testimony of Hayward L. Bigler.)

Q. Yes.

A. Who installed batch roasts, which did not work satisfactorily at all.

Q. So after two months you closed the mill down?

A. There was nothing in the contract that said we had to [1968] run it and lose money.

Q. How much money did the government spend building it? A. I don't know.

Q. Oh, about how much?

A. You'd have to dig into the figures on that. I have no way of recalling or nothing at all.

Q. Well, was it over a hundred thousand dollars?

A. Not that I know of.

Q. Where are—— A. I couldn't say.

Q. Where are these figures, are they also in the hands of V.C.A.?

A. You would have to get those from the Defense Plant Corporation, I think.

Mr. Alioto: May we have them?

Mr. Holland: We haven't got them

Q. (By Mr. Alioto): In other words, the only one that knows how much it cost to build that plant would be somebody in the Defense Plant Corporation in Washington right now?

A. It is possible that Mr. Brinker might be able to testify to that because he was the engineer—our engineer—that collaborated with the Defense Plant Corporation engineer in the designing and construction of that mill.

The Court: Well, your answer is you don't know?

(Testimony of Hayward L. Bigler.)

A. That's right. [1969]

Q. (By Mr. Alioto): Now, this was a 15-ton mill? A. Approximately.

Q. Was it not?

A. Approximately; designed to process 15 tons of ore.

Q. To whom did you sell the ore then when you closed down the mill? A. The ore?

Q. Yes.

A. We sold the ore to the Metals Reserve.

Q. And that ore was sent to Monticcilo, to the V.C.A. plant at Monticello?

A. It was sent to wherever the Metals Reserve administration instructed us to stockpile it.

Q. I appreciate that.

The Court: That was a government agency?

A. That's right.

Q. (By Mr. Alioto): I appreciate that, but can't you give us some help as to where the ore went, where your ore went?

A. Big part of it was unloaded first at Monticello and a lot of it that was then transferred to Durango. And where it ultimately was processed, I don't know. It made no difference.

Q. Now then, there came a time in the latter part of 1943 when you got together with a man named Mr. Sitton in connection [1970] with the possibility of acquiring the Durango mill that had been built with government funds and operated by U.S.V. up to that point, do you recall that?

A. No, in 1943 that mill was being operated by

(Testimony of Hayward L. Bigler.)

U.S.V. and was operated until March the 1st, 1944, or shortly after.

Q. Yes, but you are aware of the fact that at the end of 1943 there were conversations about stopping the production, the excess production of vanadium, and of canceling the Nisley-Wilson contract, and of canceling other contracts; you knew that?

A. No, I am not—the only information that I have was that we were—I recall that we were notified, I believe it was some date in January, that the Metals Reserve ore-buying program would cease on March the 1st.

Q. Now, whenever it was, at the time you received that information, did you join with other people in connection with forming a plan to take over the Durango mill? A. No.

Q. Was there a time when you got in touch with a Mr. Sitton?

A. I knew Mr. Sitton. I sold him petroleum products for his farming operations and saw him probably every few days. And I don't know what you are referring to.

Q. Now, you testified, I think on direct examination, that you had some kind of a meeting at the hotel in Grand Junction at which Mr. Leir was present? [1971]

A. That was in March of '44.

Q. March of '44. All right. Was Mr. Sitton there? A. I believe he was.

(Testimony of Hayward L. Bigler.)

Q. And who else was there? Give us all the people you remember being there.

A. Well, frankly, I don't remember very many of them. I think Mr. Balsley was there.

Q. Who was he?

A. He was a resident of Moab and an owner of quite a few mining claims.

And a man by the name of Mr. Bennett.

And a man by the name of Mr. Wright.

There were——

Q. Who was Wright?

A. There were a few other independent claim owners that were strangers to me.

Q. And you had been invited to that meeting, had you not?

A. Well, we went there primarily to discuss with Mr. Leir—or we thought we were there to discuss with Mr. Leir the refinancing program and enlargement of our mill. I knew nothing of any—of the subject matter that came up at the meeting prior to the time that we arrived at Grand Junction.

Q. Mr. Bigler, before you got to Grand Junction you say that you had no idea at all of the purpose of this meeting, that it was to organize a group of independent ore producers [1972] for the purpose of insuring a steady, dependable source of ore and vanadic acid?

A. I stated that I went there primarily to discuss with Mr. Leir and some of his associates that we thought were going to accompany him, the fi-

(Testimony of Hayward L. Bigler.)

nancing and the enlargement of the mill that we hoped to reopen.

Q. Now, regardless of your primary purpose, Mr. Bigler, my question at the moment is——

The Court: Well, did you know of this other plan, other purpose?

A. I think by the grapevine I heard there was something in the wind for that, but I don't know that I had—I don't—I am sure I had no actual information about it at all. In fact, it was a surprise to me that the meeting was specifically for that purpose alone.

Q. (By Mr. Alioto): Why? Did somebody take you to task for attending that meeting?

A. No, nobody took me to ask for attending that meeting.

Q. All right. At this meeting there were a group of producers, those that you have mentioned, among others. Now, at the meeting was there a discussion which you heard that related to the formation of an association of independent miners of ore so that there would always be a steady dependable source of ore supply for vanadic acid, do you remember any discussion about that? [1973]

A. There was a discussion about that and a discussion about the building of a mill, but who was going to put up the finances never showed up.

Q. I think a while ago you said—Mr. Holland handed you an exhibit of his called Defendants' V-2-L, and I think you said at the time that you had some handwriting on that letter.

(Testimony of Hayward L. Bigler.)

A. Yes, sir.

Q. Do you identify that handwriting as yours (handing witness)? A. Yes, sir.

Q. Would you be good enough to read the last two items of that handwriting?

A. This, by the way, is dated March the 24th, probably two or three weeks after that meeting.

Q. Well, now, then do you fix the meeting——

The Court: March 24, when?

A. In 1944.

The Court: All right. Now let him answer the question.

A. And it was after the receipt of the proposed contract that Mr. Holland read.

My notes on the bottom of this wire, if it is a wire, that was apparently sent by Mr. Milenski, my notes on the bottom of it are referring to the objectionable features in the contract, [1974] and it reads:

"Price and/or ferro grade," which apparently means that there was no specific price or grade referred to in the contract.

"Drums returned at his expense or ship in sets. Furnish one-fourth, possibly finer."

Now, he apparently asked for ground product again.

"Sodium average in shipments to V.C.A." and that referred that we were only agreeable to a sodium penalty providing that the allowable sodium was based on the amount of sodium that had been

(Testimony of Hayward L. Bigler.)

in the shipments that we had made for the last year and a half or so.

"Uranium"—have got in there "future"—that means that the uranium picture was very uncertain and there should be some definite provision or agreement on that.

And then at the bottom it says, "Association articles."

Q. What does that mean?

A. That was after the meeting and the articles of the association were being formed and we hadn't even seen them yet.

Q. All right. Now then, the "association articles" refer to something that was discussed at the meeting? A. That's right.

Q. Is that correct, Mr. Bigler? [1975]

A. Yes.

Q. Tell us everything you remember being discussed at that meeting about an association or independent ore producers.

A. Well, frankly, I didn't listen to too much of it because I was not particularly interested, because it was apparent that it was an association of ore producers and not for the benefit of a milling operation because there was no provision in the agreement to start a mill.

Q. Didn't Mr. Leir tell you at the time of that meeting in Grand Junction that if any independent ore producers or anybody else was able to demonstrate that they could produce 50,000 pounds of vanadium oxide per month without interruption,

(Testimony of Hayward L. Bigler.)

that he would build a ferro-vanadium mill in Colorado? A. I don't recall that he did.

Q. Didn't he give you that in writing, as a matter of fact?

A. No, he didn't give me that in writing. You can read the contract that he submitted to us as to what he proposed and there were any number of objectionable features in it as far as we were concerned.

The Court: Well, was Mr. Leir active in the meeting that you had?

A. He took charge of it.

Q. (By Mr. Alioto): He presided at that meeting, didn't he? [1976] A. That's right.

Mr. Alioto: Where is the contract that Mr. Holland put in?

Paragraph VIII of the contract submitted to the witness and Mr. Milenski and is part of Mr. Holland's Exhibit 2-K—the V-2-K—reads as follows:

"In the event that Blanding shall produce over a period of blank months a quantity of 50,000 pounds vanadium pentoxide contained per month and it shall be apparent that such production can be maintained over a reasonable period thereafter, Continental undertakes to construct a plant in the State of Colorado for the utilization of the process for the manufacture of ferro-vanadium. In the event that such a plant shall be erected by Continental, all ferro-vanadium produced from such plant shall be sold by Continental, and after Continental shall have paid the expense of such manu-

(Testimony of Hayward L. Bigler.)

facture and deducted a reasonable amount for amortization and the sum of five per cent upon the net sales price for profit, the balance received upon the sale of the said product shall be paid to Blanding."

Now, do you recall whether or not in view of that—does that refresh your memory as to whether or not there was a discussion at the hotel meeting about the construction of a [1977] ferro-vanadium plant in Colorado?

A. No, it doesn't. And besides that, that says "undertakes." It doesn't say "agrees". If you will read the letter that Mr. Milenski wrote and in which I collaborated with him in reply to the letter that accompanied that, and after reading that contract, you will see the analysis that we made of it.

Q. Well, I mean you objected to the word "undertakes"—is that what you objected to?

A. He didn't agree to anything. He didn't even propose to. He "undertakes".

Q. Well, did you ask him to change the word "undertakes" to read "agree"?

A. Read the letter that we wrote in reply to this.

Q. Do you claim the letter you wrote in reply refers to that paragraph?

A. It refers to that entire contract.

Q. Well, I think the letter has already been read in evidence. I don't see it here. I have no objection to reading it again.

The Court: While you are looking for it, we will take a recess.

Mr. Alioto: There is nothing in the letter about that, Judge.

(Thereupon a recess was taken until 2:00 o'clock p.m. this date.) [1978]

Thursday, June 19, 1958—2:00 O'Clock P.M.

HAYWARD L. BIGLER

a witness on behalf of the defendants, on the stand at the time of recess, having been previously duly sworn, resumed the stand and testified further as follows:

Cross Examination—(Resumed)

Q. (By Mr. Alioto): Mr. Bigler, this morning when we spoke of the construction of a new mill with the help of certain government funds, do you recall now how much in government funds you received in connection with that construction?

A. No.

Q. Was it $25,000? A. I don't know.

Q. Was there a man named Dune Harrison associated with you at that time?

A. Yes, there was.

Q. What was his business?

A. He was in charge of our milling operation.

Q. In charge of what operation?

A. Superintendent of the milling operation.

Q. Milling operation.

Did you also have a man named Brinker working

(Testimony of Hayward L. Bigler.)

with you at that time? [1979] A. That's right.

Q. What was his business?

A. He was a consulting mining engineer. He was secretary of our corporation and in charge of our metallurgy work.

Q. I take it both of these men participated in any discussions or plannings so far as the building of your mill was concerned?

A. I would say Mr. Harrison did after he joined the company.

Q. Well, did he join it at the time your new mill was being constructed in 1943?

A. I don't remember the exact date. Mr. Brinker hired him.

Q. Mr. who?

A. Mr. Brinker hired him.

Q. Both of these men were very competent men, weren't they? A. We thought them to be.

Q. As a matter of fact, Mr. Harrison wound up as a superintendent of V.C.A.'s plant at Naturita?

A. Several months later, after our operations were all over with.

Q. And Mr. Brinker wound up as a superintendent at V.C.A.'s plant at Durango?

A. I don't know what his capacity is there. He is an [1980] employee of V.C.A.

Q. You say these two men didn't know how to build a mill in 1943?

A. I didn't say that.

Q. What did you say?

A. I would like to have the record read. I don't

(Testimony of Hayward L. Bigler.)

remember I said that. I don't know what you are driving at.

Q. I thought you said that some of the government engineers had messed this mill up so badly that you couldn't operate it, and that is why——

A. I didn't say that any government engineers messed it up so badly. I said the batch roasters were installed at the recommendation of the government engineers, and they were not so satisfactory as the old roaster that we had, and our recoveries were low, and it was impossible for us to operate at a profit.

Q. I take it Mr. Harrison and Mr. Brinker participated in the decisions to set up whatever kind of roasters were set up, didn't they?

A. I don't think that Mr. Harrison and Mr. Brinker were aware of some of the problems that were going to exist after that mill was started with that type of a roaster. They were influenced by the recommendations of the government engineers, and it was the government money that was going to pay for the cost of the construction. [1981]

Q. It was the same kind of government money that was going to pay for the cost and construction of the V.C.A. mill at Monticello, too, wasn't it?

A. I am not aware at all of how that V.C.A. mill at Monticello was constructed.

Q. But you are aware of the fact that it did work, aren't you? A. Yes.

Q. And you are aware of that because some of your ore went into that mill?

(Testimony of Hayward L. Bigler.)

A. No, not because of that.

Q. By what?

A. The V.C.A. mill at Monticello had Skinner roasters in them, and they were not batch roasters.

Q. Those mills were both built by the same government money, weren't they?

A. (Witness shrugs shoulders.)

Q. Let's go on to the discussion we had this morning, sir. Let me get at it this way: It would appear from the correspondence that in February, March and April of 1944 Mr. Milenski kind of took a leading hand in negotiations, rather than you. Would that be about correct?

A. In what?

Q. At the time of the meeting at the hotel in Grand Junction, and in conjunction with the formation of an association, [1982] it would appear that Mr. Milenski, rather than you, took the leading hand in negotiations. Would that be about right?

The Court: What negotiations?

Q. (By Mr. Alioto): Negotiations relating to the association, to the contract relating to the construction of a ferro-vanadium plant in Colorado.

A. I am not aware that there were ever any negotiations for the construction of a ferro-vanadium plant in Colorado. And the only reason that Mr. Milenski took what appears to be an active interest, a more active part in the negotiations at this time, was because Mr. Milenski had usually conducted the correspondence with Mr. Leir. I was not

(Testimony of Hayward L. Bigler.)

acquainted with the man; I never met him; I never even talked to him on the phone, as I remember.

Q. Then you were still active in this organization—— A. That's right.

Q. ——in the beginning of 1944, I take it, Mr. Bigler? A. That's right.

Q. At that time there was some kind of a negotiation with a Mr. Sitton. Do you know what that was all about?

A. Whose negotiation with Mr. Sitton?

Q. Well, apparently Mr. Milenski was carrying them on.

A. Mr. Sitton had nothing whatever to do with the Blanding [1983] Mines Company's operations.

Q. Let me show you a letter dated March 17, 1944. It is from Mr. Leir to Mr. Daniel Milenski in Cortez, Colorado, that refers to the association and the so-called Sitton deal, and it is that deal that I am interested in finding out about.

A. I know nothing about any Sitton deal. Mr. Sitton was present at that meeting in Grand Junction together with several other independent claim owners.

Q. Well, do you want to read that to yourself, Mr. Bigler, and then see if that letter refreshes your recollection at all as to any deal that Blanding had with Sitton?

A. (After perusing letter): I certainly don't know what he is referring to. I would infer that from that first paragraph (reading):

"Re-tel. Unable to agree in writing with Sitton

(Testimony of Hayward L. Bigler.)

on deal, and since we cannot we insist all officers of proposed organization be either Utah or Colorado residents as well as independent producers."

Must refer to some deal that in conversation in negotiations that Mr. Milenski had had directly with Mr. Leir in connection with the formation of an association, and I was never particularly interested in the formation of the association because I didn't think it would work.

Mr. Alioto: Let's offer this letter into evidence, if your Honor please, so that we can see what we are speaking [1984] of here. It has attached the contract that is already in evidence. We will offer it as plaintiffs' exhibit next in order in connection with this cross examination. Letter of March 17, 1944, from Mr. Leir to Mr. Milenski.

Mr. Archer: You are not offering it against the Carbide Company?

Mr. Alioto: Not at this moment, no.

(The letter referred to was thereupon marked Plaintiffs' Exhibit No. 158 in evidence.)

[See Book of Exhibits.]

Mr. Holland: Is that one letter?

Mr. Alioto: It is a letter that has a contract attached. It is the same contract you submitted, Mr. Holland. We can remove the contract, but it is physically attached rather hard at the moment, and we can do it at a more convenient time.

Mr. Holland: If it is the same one, why don't we save a little——

Mr. Alioto: I am going to do that, but it is at-

(Testimony of Hayward L. Bigler.)

tached a little hard, and I don't want to mess up the exhibit going in.

March 17, 1944, Mr. Leir writes to Mr. Milenski as follows:

"Dear Mr. Milenski:

"Thank you for your wire reading as follows:

"'Retel Unable to Agree in Writing With Sitton on [1985] Deal and Since We Cannot We Insist All Officers of Proposed Organization Be Either Utah or Colorado Residents as Well as Independent Producers.'"

And then—that's a telegram—the letter follows:

"I must admit that I don't quite understand why you insist that all officers be Utah-Colorado residents as well as independent producers. For that matter, Mr. Sitton is eligible in both instances whether you complete your private deal with him or not. Of course, I hope that you will be successful in your agreement with Mr. Sitton as well as with regards to the association.

"Mr. Pleasants had a trial in court which delayed all his other work, but he promises to let us have the contracts today or tomorrow. As soon as we receive it it will be forwarded to you.

"Needless to say, both matters, the Sitton deal and the formation of the association, are considered of equal importance by me.

"Please keep me informed as to developments.

"Continental Ore Company.

"By Henry J. Leir."

The Witness: May I——

(Testimony of Hayward L. Bigler.)

Q. (By Mr. Alioto): Yes, Mr. Bigler. [1986]

A. I call your attention that that says a private —"your private deal," and not "Blanding Mines Company deal."

Q. Well, was it a private deal?

A. I don't know. Mr. Milenski wrote the letter, and that letter is addressed to Mr. Milenski.

Q. That is what I am trying to establish, since we had a lot of other letters written by——

A. I say that Blanding Mines Company had no deal pending of any kind with Sitton.

Q. All right, that is what I want to establish. As far as you are concerned, you were not part of this Sitton arrangement?

A. I had no dealings whatever with Mr. Sitton.

Q. All right. Now, Sitton was a very substantial ore producer in the area at the time, was he not?

A. Well, he produced and shipped quite a lot of vanadium and uranium ore.

Q. Don't you recall at the time of that meeting in Grand Junction that Mr. Leir said that the "indispensable thing we must have is an assurance of a continuous supply of raw material, and that if an arrangement can be made with Mr. Sitton, who standing alone could assure us of that, that would be all right; if not, there ought to be an association of ore producers who could assure us of a continuous supply of ore during the time we have in mind" —do you recall that being [1987] said?

A. No, I don't, not at all.

Q. Now then, don't you recall that at that meet-

(Testimony of Hayward L. Bigler.)

ing at the hotel there was some discussion about the ore producers being organized for the purpose of affording a continuous dependable source of supply, and that the Durango plant might be purchased—the government plant at Durango—for the purpose of getting a real large competitor to both V.C.A. and U.S.V.?

A. No, I have no recollection of that at all.

Q. Were you in on any of the negotiations with either Mr. Sitton, Mr. Milenski, or anybody else, in connection with making an offer on the Durango plant? A. No, I was not.

Q. In October of 1944 we have a telegram from Mr. Burwell, I think, relating to that.

In October of 1944 were you in any kind of commercial relations with Mr. Sitton?

Mr. Archer: I believe it is March, '44.

Mr. Alioto: March. You're correct. March, '44.

A. I certainly don't recall any personal relations that I had with Mr. Sitton in a business way, or as a representative of the Blanding Mines Company, with Mr. Sitton.

Mr. Archer: The telegram doesn't refer to this witness.

Mr. Alioto: No, the telegram refers to Sitton and [1988] others.

Q. (By Mr. Alioto): Now, that is about the same time as the meeting in the hotel, and at the same time as this association talk, and I am just

(Testimony of Hayward L. Bigler.)

asking the witness if he doesn't remembe. all the talk of forming an association of independent producers.

The Court: He says he doesn't know anything about it.

Q. (By Mr. Alioto): That is still the state of your recollection? A. That's right.

Q. That the association had nothing to do with the Durango plant?

A. Not to my knowledge.

Q. O.K.

A. In fact, I had very little interest in the formation of the association, as I told you, because I doubted if it would work.

Q. Well, it ultimately was formed, wasn't it, the Uranium Producers Association, headed by the same Mr. Balsley who was present?

A. Well, I don't know what—how this Uranium Producers was formed, but it was not formed at this time, to my knowledge.

Q. It ultimately was formed, and it has done a tremendous [1989] job, hasn't it? It has done a tremendous job? A. I don't know.

Mr. Alioto: Let me have this marked for identification.

(The contract referred to was thereupon marked Plaintiffs' Exhibit No. 157 for identification.)

Q. (By Mr. Alioto): I show you what has been marked for identification Plaintiffs' 157, which

(Testimony of Hayward L. Bigler.)

purports to be a copy of a contract signed by H. L. Bigler, president, Blanding Mines Company, and Dan Malenski, secretary, and on behalf of the Vanadium Corporation of America, by E. D. Bransome, president, and P. J. Gibbons, secretary, 420 Lexington Avenue, New York City. Will you be good enough to look at that contract, Mr. Bigler, and then tell us whether that is the agreement that was made between you and V.C.A. in June of 1942?

A. Yes, that is the agreement that supplements the agreement, or replaces the agreement that we had with Mr. Garbutt.

Mr. Alioto: We will offer this in evidence, if your Honor please—the agreement between V.C.A. and this witness.

Mr. Archer: Are you offering it against——

Mr. Alioto: At this point, against V.C.A. only, yes.

Mr. Holland: No objection. [1990]

Mr. Alioto: I take it there will be applicable instructions covering the rule.

The Court: Let it be admitted, there being no objection. I don't see its competency, materiality.

(The contract formerly marked Plaintiffs' Exhibit No. 157 for identification was now received in evidence and so marked.)

[See Book of Exhibits.]

Q. (By Mr. Alioto): Now, this is a long agreement and we won't go into all of it, Mr. Bigler.

(Testimony of Hayward L. Bigler.)

Paragraph II of this agreement provides as follows:

"All ore mined by Blanding on the leased premises and considered by it to be of too low grade to mill, will be separately stockpiled by Blanding on the leased premises, and at any time at the option of Vanadium shall be sold to it at the market price current at the time for such ore, less, however, in lieu of royalty payable by Blanding to Vanadium in respect of such ore, an amount equal to five cents per pound of contained vanadic oxide (V_2O_5) in such ore. If Blanding desires to sell this ore to a third party and Vanadium does not desire to purchase it on the above basis, the Blanding may sell such ore to a third party and pay Vanadium five cents per pound of contained vanadic oxide in such ore so sold. Except as Blanding shall mill, or separately and normally stockpile in order to mill, ore mined on the leased premises, whatever the grade of such ore, Vanadium shall have a like option to purchase such ore and to the extent that Vanadium shall elect not to purchase the same, a like right to royalty upon the sale thereof to a third party."

That is a little involved as legal language, but in practice wasn't the deal that if you sold your ore to a third party, the ore described in this paragraph, that you had to pay a royalty on it to the Vanadium Corporation of America?

A. That is right.

(Testimony of Hayward L. Bigler.)

Q. And the royalty was five cents per pound of contained vanadic acid in such ore?

A. That is right.

Q. Do you recall whether or not any ore was sold to a third party on which this royalty to V.C.A. was paid?

A. There were a lot of ores sold to Metals Reserve at a later date and V.C.A. was paid the royalty according to the provisions of that contract.

Q. Other than to Metals Reserve, did you sell any ore to a third party that called for the application of this five-cent royalty figure?

A. No, and neither did we sell to V.C.A. that I remember of.

Q. There is another clause, Paragraph VI, I want to call your attention to, and that is:

"Any claims located or acquired by Vanadium south of Spring Creek or east of Cottonwood Creek and within a distance of one mile of the claims covered by this agreement, may at the option of Blanding be operated and mined by Blanding upon payment of the royalties stated in Paragraph I and II hereof. Any claims located or acquired by Blanding [1993] south of Spring Creek or east of Cottonwood Creek and within a distance of one mile of the claims covered by this agreement may, at the option of Vanadium, be purchased by Vanadium at the cost of acquisition or location, including exploration, but the maximum price payable by Vanadium therefor shall be $300 on any one claim, and any such claim purchased by Vanadium

(Testimony of Hayward L. Bigler.)

may be operated by Blanding on the same royalty basis as the claims covered by this agreement."

Do you recall whether or not you attempted to purchase any claims in the vicinity under this clause?

A. No, that is a carry-over from a provision in the Carbide contract, and while the Carbide contract was in effect, we did acquire and file on additional claims which we transferred to Mr. Garbutt, which were later included in the number of claims that were under lease.

Q. Then you made this same provision with the Vanadium Corporation of America?

A. That is right.

Q. Did you insist on the inclusion of that clause or was that simply presented to you?

A. We didn't object to it. It was in the other contract.

Q. The Vanadium Corporation proposed that clause giving them the right to acquire—— [1994]

A. No, they didn't propose it. It was in the Garbutt contract. And that was one of the indisputable and non-contestable provisions in there that we had no objection to.

Q. Who drew up this contract, do you know?

A. Mr. Milenski and Mr. Bissell worked out the wording on that.

Q. Who was the second gentleman?

A. Mr. Bissell, the attorney for the Vanadium Corporation of America.

Mr. Alioto: We offer this in evidence. I want

(Testimony of Hayward L. Bigler.)

to come back to this. I know you said you didn't remember anything about the Durango situation, but there is a telegram in evidence dated about the time of this meeting and association talk. It is February 29, 1944 from Blair Burwell in which he says:

"Brock advises——"

Mr. Holland: Your Honor, I object to his reading this telegram to this witness. It was not to this witness.

Mr. Alioto: I didn't say it was. I am trying to refresh his memory.

The Court: Let him see it.

Mr. Alioto: I will be glad to let him see it.

Q. You notice this telegram mentions a man named Brinker, as well as Milenski. Brinker was working with you at the time, wasn't he? [1995]

Mr. Holland: It doesn't mention Milenski, does it?

Mr. Alioto: No, the telegram mentions Brinker. You already had the evidence that relates to Milenski, in the contact with Sitton.

Q. In February 1944 was Mr. Brinker working with you?

A. Mr. Brinker was one of the stockholders and officers of the Blanding Mines Company, and to that extent only did I work with Mr. Brinker, and what Mr. Brinker—how Mr. Brinker was negotiating and carrying on any of his personal affairs, I had no particular basis for knowledge of that, and I didn't care.

(Testimony of Hayward L. Bigler.)

Q. In other words, you did not care if Mr. Brinker and Milenski made a separate deal to set up a competitive vanadium mill, is that it?

A. If I didn't object to it——

Q. Yes?

A. ——it was perfectly within their rights to do so, and I didn't object to it.

Q. In any event, the fact that Brinker, we now have Brinker associated with Sitton in connection with the Durango plant, that still does not recall anything to your memory that Blanding——

A. That doesn't recall anything to my mind because Blanding Mines had no particular part in any of that.

Q. At this time were Brinker and Sitton the only other [1996] stockholders besides you in the Blanding Mines? A. Were who?

Q. In February 1944 was Mr. Milenski—you are right.

In February 1944 Mr. Brinker and Mr. Milenski both were stockholders of Blanding Mines?

A. That is right.

Q. Were there any other stockholders?

A. Yes.

Q. Do you recall what proportion of the stock was held by these two? A. Not exactly.

Q. Was it a majority?

A. But the controlling stock of the Blanding Mines Company was held by myself, Mr. Milenski and Mr. Brinker.

(Testimony of Hayward L. Bigler.)

Q. The three of you had more than fifty percent? A. Yes.

Q. Did Mr. Brinker and Mr. Milenski standing alone have more than fifty percent? A. No.

Q. Who were the other stockholders of Blanding's at this time?

A. Well, there was a Donald Adams at Monticello, Utah; Marvin Lyman at Blandings, Utah; I believe D. E. Harrison held some stock in it, and one or two others that probably held a few shares. I can't recall. I couldn't see that it [1997] made any particular difference.

Q. Are you still in business, Mr. Bigler, or are you retired now?

A. I am still self-employed.

Q. What is your business at the present time?

A. Looking after my present investments in farming and ranching operations, and some mining claims and holdings in the Colorado Plateau area.

Q. Do you presently have any commercial relations with the Vanadium Corporation of America?

A. No.

Mr. Alioto: We have no further questions, if your Honor please.

Mr. Holland: I would like to put one more letter in the record on this 1944 situation.

Mr. Alioto: No objection.

(The document referred to was thereupon received in evidence and marked Defendant's Exhibit V-2-N.)

Mr. Holland: This is a letter dated March 31st,

(Testimony of Hayward L. Bigler.)

1944, from Mr. Leir to Blanding Mines Company, attention Dan Milenski.

"Your letter of March 24 and ours of March 27 no doubt crossed in the mails.

"Before entering into further details, we would like to make some general remarks so that you can properly appraise our situation:

"When shipments on V_2O_5 from Utah and Colorado decreased, and at a time when we needed them the most, we decided to make ourselves independent. We created equipment for the treatment of foreign vanadium ores, and frankly speaking, we are not in need of any material from Utah/Colorado today, unless we should want to expand our present business considerably.

"We will buy from you only if you are willing to make long-term contract with us which will protect our interests to that any changes we might make now in your favor (and to the detriment of our own conversion of foreign ores) would not prove harmful to our own interests one day.

"As long as your output is only 15,000 pounds per month there are no particular difficulties with regard to our own outlets, but the moment you achieve a larger output, we would like to see an 'association' created, because the 'association' would give us a better standing in the marketing of the finished product.

"The price must be based on the Na_2O contents because whatever Na_2O we have in the acid will absorb a like quantity of V_2O_5. [1999]

(Testimony of Hayward L. Bigler.)

"We would be willing to buy the material in full carloads, which would in turn enable you to make considerable savings on freight and packing. We would accept so-called asphalt laminated paper bags, which we can buy for you at about $100 per 1,000 delivered Utah, or 10c per bag. The bags can easily contain 100 pounds.

"In giving you these advantages the 2% Na_2O basis which I mentioned in Grand Junction should be reduced to 1% Na_2O.

"We believe that the above will show you our position in the matter, and we await your reaction before going further into the other details which, we are certain, can be worked out to our mutual advantage."

Mr. Holland: That is all of the witness.

Q. (By the Court): Did you sell any to them on the basis of one or two percent sodium content?

A. No, sir, we did not.

Recross-Examination

Q. (By Mr. Alioto): Mr. Bigler, at this meeting at the hotel, did you say in substance or effect that you were against any association of any kind?

A. No, I did not.

Q. As a matter of fact, Mr. Milenski was appointed to [2000] get together some kind of articles for an association, wasn't he?

A. I think that there was a committee appointed there at that meeting, and I believe that Mr. Milen-

(Testimony of Hayward L. Bigler.)

ski was one of the members of the committee, as I recall.

Q. Yes. Now, prior to that time, when you were supplying Continental Ore Company, you suddenly ceased supplying that company and turned your production over to the Vanadium Corporation of America. You have already testified to that.

A. Yes.

The Court: Was that on account of the price?

A. It was partially on account of the price and some of the other provisions and reasons that I believe I stated heretofore, the lacking of the grinding requirements and the saving of freight. V.C.A. picked up all the shipments that were made to them right at our mill with their own trucks.

Q. If you had sold to Continental, what would you have had to have done?

A. That mill was one hundred and some odd miles from the closest railroad and we would have had to package it and deliver it by truck to a rail point for shipment to whatever point was designated by Continental, or Chicago, or New York.

Q. You considered the price that was offered you by the Vanadium Company of America as a good business proposition?

A. We considered it far better than installing crusher equipment for grinding and shipping according to the specifications that were being placed by the Continental Ore Company.

Mr. Alioto: May I have Exhibit 131?

(Testimony of Hayward L. Bigler.)

Q. Mr. Bigler, didn't there come a time when Continental Ore offered you $1.20 per pound?

Mr. Holland: Your Honor, we could go on forever here. I do not think this is proper recross.

Mr. Alioto: The Court has just asked a question which I submit is contrary to the evidence. We have some information on the very subject matter that the Court inquired into. It will take me five minutes to get at it. I would like the opportunity to do it.

The Court: Go ahead. If you can get through anything in five minutes, let us have it. All of this is immaterial to the issues in this case. I have indicated as much right along.

Q. (By Mr. Alioto): That $1.20 price was f.o.b. Blandings, was it not?

A. I don't remember. You have a letter there—

Q. Let me show you Mr. Leir's letter to Dan Milenski of March 16th, 1942.

A. I would not consider this an offer.

Q. I mean the $1.20 price that was spoken of was f.o.b. Blanding? [2002]

A. That is right, but this is not a specific offer. May I read the paragraph that you are referring to?

The Court: Read the letter.

The Witness: It says:

"Dear Mr. Milenski:

"We refer to our letter of March 5th, to which we have not yet received any reply. As you can see from the enclosed clipping, prices for ferro alloys will remain unchanged during the second

(Testimony of Hayward L. Bigler.)

quarter. However, we have a need which makes it possible for us to pay our suppliers an especially high price, which would work out in your case to be as high as $1.20 f.o.b. Blanding. If you are interested in a contract, let us know."

Now, that just says that it would work out in our case — might work out in our case — "which would work out in your case to be as high as $1.20."

Q. You answered in connection with the Judge's question that your main objection was that you did not want to refine this ore as they wanted to have it refined.

A. We didn't choose to grind it and ship it in such form.

Q. Now, you had an offer from Continental in May, 1942 through Mr. Dan Milenski that if you did not want the $1.20 for flakes, that is, the ground material, he would pay $1.17½ for lumps, didn't you? A. I don't remember.

Q. It is in evidence in this case, in any event, as Exhibit 131.

A. I might call your attention, inasmuch as you keep emphasizing that, that until such time as we had been offered and began to receive $1.10 a pound, we had never been offered by the Continental Ore Company more than $1.02 or .03 cents a pound less the commission in most cases.

Q. Do you recall that when you broke away from the Continental Ore Company to sell to V.C.A. that was at or about the time that V.C.A. and Carbide started negotiating, as you have testified?

(Testimony of Hayward L. Bigler.)

Do you recall at that time, too, there was some letter from Washington which indicated that it was all right for the Blanding production to go to Apex and Continental?

A. It was not an order for us to ship.

Q. No, it was not.

A. And we were not co. reed by Mr. Garbutt or V.C.A. to sell to V.C.A.

Q. Who was the man named Eaton in your organization? L. Eaton.

A. L. Eaton?

Q. I show you a letter dated February 23rd, 1942 to [2004] Apex Smelting Company written by an L. Eaton, who purports to be an Assistant Secretary. Will you be good enough to tell us who he is?

A. That was a secretary of Mr. Milenski's, and that letter undoubtedly was written in Mr. Milenski's absence.

Q. Will you just read the letter? Is there something about the letter that you wish to correct in the light of your recollection of what happened?

A. No.

Q. This letter represented the agreement——

The Court: What is the letter?

Mr. Alioto: We will offer it into evidence, if your Honor please.

Mr. Holland: I have not seen it.

Mr. Archer: You are not offering this against Carbide, are you?

Mr. Alioto: At the moment against V.C.A.

(Testimony of Hayward L. Bigler.)

Mr. Holland: I do not know how long this is going to go on. It has nothing to do with my redirect examination whatever.

Mr. Alioto: I think it has, your Honor, and this is the last document that is going in.

The Court: If that is the last one, let it go in.

Mr. Alioto: We have difficulty to under your Honor's comment that something they do in connection with an Apex source of supply is not material to this action in 1942. We are offering it on that basis.

(The document referred to was thereupon received in evidence and marked Plaintiffs' Exhibit 159.)

The Court: Your witness, Mr. Leir, testified at the time he severed connections with Apex that he had ample material there.

Mr. Alioto: He was speaking of a specific month in January, if your Honor please, speaking of a specific month, and we know that Mr. Bayer wrote to the government and said they could not operate because of lack of supplies, and that is a Jury question to be determined.

Mr. Holland: He didn't say——

Mr. Alioto: That they could not operate to capacity because of lack of supplies.

The Court: And they exported a lot of it.

Mr. Alioto: I think the record shows otherwise. I think there is a factual conflict there and we would like an opportunity to present it.

In any event, this letter of February 23rd, 1942,

(Testimony of Hayward L. Bigler.)

is from the assistant secretary of Blanding Mines to Apex Smelting Company:

"We have your wire of February 14 and letter confirming the wire. No report was made at an earlier date for the reason that we were endeavoring to become more familiar with the situation.

"As we take the letter we received from the War Department, we are not directed to sell our product to you, and as previously advised, other arrangements have been made for the sale of our product and we have informed the War Production Board that we desire to continue with our present sales arrangement.

"We regret that we are unable to sell our product to you; however, you are aware of our set-up and the fact that we are merely operating under a lease. We are producing now under somewhat of a handicap for the reason of adverse climatic conditions with result of poor roads."

Q. At the time he stated that you were operating under a lease, that was the lease with Carbide, is that correct, is it not?

A. What is the date?

Q. February 1942.

A. That is true.

Q. And the lease that was shortly thereafter turned over to the Vanadium Corporation of America? A. That is right.

Mr. Alioto: We have no further questions of this witness.

(Testimony of Hayward L. Bigler.)

Further Redirect Examination

Q. (By Mr. Holland): Were you aware that had you accepted this offer $1.20 or $1.17½ from Mr. Leir, you would have been unable to fill it because price regulations would have limited your price to $1.10?

A. I just don't recall. I remember that there was some price establishment at that time, but as to what date I became familiar with it, I am not sure.

Mr. Holland: That is all.

Mr. Alioto: We have no further questions.

The Court: Step aside.

(Witness excused.)

FREDERICK F. KETT

a witness called by and on behalf of the defendants, Vanadium Corporation of America, and being first duly sworn, testified as follows:

The Clerk: Will you please state your full name and address?

The Witness: Frederick F. Kett, 409 Hare Lane, San Mateo.

Direct Examination

Q. (By Mr. Holland): Mr. Kett, were you formerly employed by the Vanadium Corporation of America? A. I was.

Q. In what capacity were you employed by that company in 1938?

(Testimony of Frederick F. Kett.)

A. You mean before or after Mr. Reece died?

Q. After Mr. Reece died.

A. Well, I took his job as general manager of mining.

Q. Do you remember when he died?

A. Yes, January 19th, 1938.

Q. Then on July 1, 1938, you were general manager of mining? A. That is correct.

Q. Did you hold that position during the period 1938 to 1949?

A. Yes, up until the time I retired.

Q. When did you retire, Mr. Kett?

A. June 1st, 1950.

Q. Mr. Kett, if you do not object, will you state your age?

A. Yes, I will be 76 next October.

Q. Mr. Kett, in the year 1940, I believe you started the Naturita plant, reopened it, is that correct? A. Yes.

Q. Did you have charge of that?

A. Yes. [2009]

Q. Prior to the opening of that plant or prior to the preparations for opening that plant, had Vanadium Corporation been buying any ore on the Colorado Plateau? A. Yes.

Q. Immediately prior, I mean?

A. Yes.

Q. When after 1938 did you start buying ore, do you remember?

A. Oh, late in the summer of 1939.

Q. That was when you first started to buy ore?

(Testimony of Frederick F. Kett.)

A. I think so.

Q. And you opened the plant in the summer of 1940, is that correct? A. Yes.

Q. Did you have charge of fixing what prices Vanadium Corporation would pay for ore?

A. From the independent miners?

Q. From the independent miners.

A. Yes, I did.

Q. What did you do in respect to establishing your opening price?

A. Well, we made quite extensive calculations based on what we thought it would cost to produce the oxide through our metallurgist in Bridgeville, and from that we figured that we could pay *around cents* per pound contained V for [2010] two percent ore, and that was the basis of our starting point of our payments.

Q. The price schedule which is in evidence in this case, Mr. Kett, shows a price of 21 cents for two percent ore. Do you know how that price came in?

A. We started at 20½ but we didn't get any ore.

Q. Why was that?

A. Well, the U.S.V. were paying 21 cents and we thought as we were 14 miles closer to the suppliers, that our calculation of 21 cents was too high to the miner to save a 14-mile haul anyway.

Q. (By the Court): You mean 20½?

A. Beg pardon?

Q. You said 21. You mean 20½?

A. No, we had figured originally at 20, but we

(Testimony of Frederick F. Kett.)

didn't put that price on for the miners because we didn't think we would get any at 20, because U.S.V. were paying 21, but we did think we would get it at 20½. So we tried it at 20½, but we still didn't get it, and we decided to settle for 21.

Q. (By Mr. Holland): And then there is in evidence a price schedule showing that very shortly, in July of 1940, you changed the schedule so that you paid on the basis of each tenth of a percent in the ore—in other words, your first schedule had a certain price of 21 cents for——

A. For two percent.

Q. ——two percent ore, and for two and a half percent ore there was a slightly higher price.

A. Yes.

Q. And then in July, I believe, you put in a price which made the break at each tenth of a percent, is that correct? A. That's correct.

Q. For what reason did you do that?

A. Well, of course, that was to the advantage of the miner to get it on every tenth instead of every half percent. [2012] Naturally, if he brought in ore running 2.49, he would get paid just the same for it as he would for bringing up any ore that went 2.190 on the half-percent break. But on the tenth break he would get it on every tenth of one percent, which is about five times better for him.

Q. Was this change made on the basis of any agreement you made with U.S.V.?

(Testimony of Frederick F. Kett.)

A. Not at all. That was our effort to get miners to bring us the ore.

Q. Did you know whether or not U. S. Vanadium established a similar scale to the one you established in July—that is, with breaks on each tenth? A. No, I do not.

Q. Now, Mr. Burwell testified that there was some conversation in New York between him and Mr. Van Fleet and Mr. Bransome at which it was not agreed, but there was a statement made that they would each pay 21 cents for ore. Do you know of any such agreement?

A. I never heard of it.

Q. Did you ever receive any directions from Mr. Bransome to pay 21 cents and to keep the price pegged there?

A. No, I don't think so. Not as far as I remember.

Q. Did you do anything else besides this tenth of a percent price scale in order to try to induce the miners to sell their ore to you rather than to U.S.V.? [2013]

A. Yes, we did. These miners were all little fellows, financially, and they had no equipment whatsoever. The miners just had hand-drilling, and so forth. So we thought those boys would look very favorable on having a little help, and we went and spent $30,000 on small compressor outfits. Each one consisted of a small portable compressor and a jackhammer drill, and drills, and forge to sharpen the steel with, and tools like that. So we got about

(Testimony of Frederick F. Kett.)

15 of those, and we spread them around among the most productive ones of our suppliers on the basis they would pay, I think, $1.00 a day rent—I have forgotten exactly—which was to apply on the purchase of that equipment if they ever wanted to buy it, or if they never wanted to buy it, then whenever they quit shipping to us they returned the thing to us, and the dollar a day that they had paid and which had been deducted from the proceeds of the ore that they brought to us, well, that finished the deal.

Q. And did you do anything else in an effort to attract ore?

A. Well, we put in a pretty efficient little sampling plant, for one thing, which they liked very well.

Q. What did you do about hauling allowances?

A. About what?

Q. Hauling allowances.

A. No, not at that time, nothing. That came on much later. [2014]

Q. When did that come on?

A. I would say about late in '42.

Q. And what happened? Tell the jury what happened in respect to hauling allowance.

A. Well, the ore that had been coming to us—and we were 14 miles closer to most of the suppliers—started going past us, and we didn't know why our old customers were going 14 miles further. But we investigated, and the talk was that they were paying something extra to these fellows to

(Testimony of Frederick F. Kett.)

haul it. So we investigated that, and the first one that we heard was getting an extra allowance was one of our best producers, and we heard—no, he himself said he was getting $2.00 a ton for the haul.

So I asked them down at U.S.V. was this fellow getting his $2.00 a ton, and after they investigated they said no, he wasn't getting anything extra.

However, these rumors kept coming in about haulage allowances—no stated amount to anyone, but just what they had to offer him to induce him to pass by us.

We at that time tried to get either a settlement sheet made out by the U.S.V. to these fellows, you see, which would show that hauling allowance, if there was any, or a sworn statement from him.

Now, while they all said that they were getting this allowance, there wasn't one of them that would give us any proof.

So in order not to have any more jawing with them about possible haulage allowances, we frankly came out and said, "We will pay you fellows three cents per ton mile for hauling up to 60 miles."

Well, they liked that idea of a fixed amount that they didn't have to dicker for, or complain about, or anything else, and the ore started coming in again.

We afterwards raised that to four cents, and made a much longer haul, too. I mean, we, instead of limiting it to 60 miles as at first, I think we paid for any old mileage at four cents.

(Testimony of Frederick F. Kett.)

Q. And was that done in accordance with any agreement you had with United States Vanadium?

A. Oh, no, not at all. I don't think they knew anything about it until it was an accomplished fact.

Q. Did you ever hear of, or know of any connection with any agreement with United States Vanadium as to what price would be paid miners for ore? A. None whatever.

Q. Mr. Burwell testified that in 1942 he and Mr. Bransome and you, and possibly John Hill, met in Dove Creek, Colorado, at which time Mr. Bransome made the statement that he was going to raise his price to 31 cents, and Mr. Burwell said he would go along. Did you attend any such meeting? [2016]

A. No, I never attended any such meeting. I never heard of it until it was mentioned here lately.

Q. What was your policy as the man in Vanadium Corporation who determined the prices to be paid for ore, what was your policy in connection with raising the basic base price of ore? In other words, why did you——

A. They never were raised to amount to anything from our original figures.

Q. Except when they went from 21 to 31, is that correct?

A. Oh, yes, but that was Metals Reserve, that wasn't us.

Q. That was because of Metals Reserve competition in selling ore? A. Yes.

(Testimony of Frederick F. Kett.)

Q. Well, why weren't they raised? Why didn't you raise your price?

A. Well, the ore was coming in satisfactorily at those prices.

Q. Well, you have testified that U.S.V. at times paid haulage allowances and got them to haul ore by your plant. Why didn't you raise the base price, say, from 21 to 22 cents, instead?

A. I didn't want to start any price war on that, because their costs were very much less than ours were, always, and they could have just kept on raising and raising until they put us out of business. [2017]

Q. Did you feel that you were paying the miners a fair price for the ore?

A. Yes, we did.

Q. Did you ever discuss ore prices with anyone at United States Vanadium?

A. No, never.

Q. Not even in a casual way?

A. Well, possibly something might have been said like "These miners are never satisfied with the prices."

The other guy would say, "No, they never are."

But that was not a discussion of ore prices.

Mr. Holland: I believe that is all.

Cross-Examination

Q. (By Mr. Alioto): Mr. Kett, when some miner told you he was getting a higher price or a hauling allowance from the United States Vana-

(Testimony of Frederick F. Kett.)

dium Company, it was your practice, was it not, to go talk to the officials of U.S.V. and check that miner's story? A. No, not at all.

Q. Didn't you do it at all?

A. I did it once.

Q. Now, who was it that you talked to in the United States Vanadium Company?

A. Mr. Haldane.

Q. And who was Mr. Haldane?

A. He was their general superintendent at Uravan.

Q. Do you recall approximately when that was, Mr. Kett?

A. No, I don't but I suppose it was about the middle of '40.

Q. You went to Mr. Haldane and asked him whether or not it was true that he was paying a hauling allowance, is that it?

A. No, I telephoned him.

Q. You telephoned him? A. Yes.

Q. What did you tell him over the telephone, Mr. Kett?

A. That this man, Lyon, who was passing by us, claimed he was doing it because he was getting $2.00 a ton over and above whatever the price was, which was for the haul.

Q. And then what did Mr. Haldane say to you? What did the gentleman from U.S.V. say to you, Mr. Kett?

A. Well, he waited about two days until he had investigated it, and—he didn't tell me; I think I

(Testimony of Frederick F. Kett.)

had left Naturita by that time. But, anyway, he conveyed the idea that Mr. Lyon was lying.

Q. So on the basis of that you didn't give him the $2.00 hauling allowance, did you, Mr. Kett?

A. No, we did not.

Q. Now then, you said in answer to your counsel's question that you didn't want to start a price war against U.S.V. [2019] Is that because their costs were so much lower than yours?

A. That was pretty much the reason, all right, but we were paying about all the traffic would bear. If we raised that price very much we couldn't make anything on the oxide.

Q. Approximately what was your cost of producing oxide as compared to the United States Vanadium's, Mr. Kett?

A. Well, I don't know what their cost was, but ours was very much—was double theirs.

Q. Your cost of producing oxide?

A. I think so.

Q. Yes. You have had conferences, of course, with both Mr. Van Fleet and Mr. Burwell on many occasions, have you not?

A. No. On very rarely—not as far as I remember. Only one in nine years.

Q. One in nine years?

A. Something like that.

Q. Do you remember having a conference with Mr.—do you remember a conference with Mr. Van Fleet about competitive activities on the Colorado

(Testimony of Frederick F. Kett.)

Plateau relating to the building of a mill at Gateway, Colorado?

A. That wasn't a conference; that's two fellows meeting in the middle of the street and saying, "Did you hear there was a mill going up in Gateway?"

"Yes."

"Well, what do you think about it?" [2020]

"Well, I don't think it will be a success." Period.

Q. And you didn't regard it as very important at all? A. Not at all.

Q. So you wrote a memorandum about that conference to the president in New York, didn't you? A. That's right.

Q. Why did you write a memorandum about it to the president in New York if you didn't think it was important?

A. I thought he should know about it, just as much as Mr. Van Fleet, or anybody else. It was in our neighborhood. And there weren't very many mills starting down there, so naturally, it was of interest.

Q. It was of interest as a competitive matter, I take it?

A. No. You mean as a competitor?

Q. Yes.

A. No, sir. We didn't — we never considered them as a serious competitor.

Q. Did you ever get suggestions from any of your personnel that you ought to acquire claims

(Testimony of Frederick F. Kett.)

for the purpose of seeing that they didn't fall into competitive hands, Mr. Kett?

A. Received what orders, for what?

Q. Did you ever receive recommendations from any of your personnel that certain claims ought to be acquired for the purpose of keeping them out of the hands of the competitors?

A. You mean personnel working under me?

Q. Yes, sir.

A. Well, we were all on the lookout for claims all the time, and we certainly wanted to keep them out of the hands of U.S.V.

Q. Yes. How about anybody else?

A. No, we weren't worried about anybody else. The boys were asking so much money for these claims that you had to be a millionaire to talk to them.

Q. Well, there is a letter in evidence, Mr. Kett, from Mr. Viles, who was your assistant manager of the western division in Naturita.

A. That's right.

Q. He later became the head man, didn't he?

A. That's right.

Q. And it is addressed to you at 420 Lexington Avenue, New York, in connection with the purchase of Dry Valley. And in that he says:

"In regard to the purchase of the Dry Valley property belonging to the Moly Corporation, there is considerable low-grade ore in the Frisco and Waterfalls group, and this property, in my mind, if it could be purchased, say, for $2,000, would be

(Testimony of Frederick F. Kett.)

a good investment if only to prevent some outsider getting ideas in regard to the Monticello plant."

Now, you don't contend that that outsider getting ideas in regard to the Monticello plant was the U. S. Vanadium Company, do you?

A. Oh, no. And furthermore, I remember that letter. But it didn't make sense to me, because here's two claims—only two or three claims—I don't know how many there were—quite a ways from the Monticello plant, and how anybody, if they acquired two claims, could get any ideas about any plant at all, was to my mind pretty absurd.

Q. In any event, Mr. Kett, do you remember there was an occasion when you worked out a joint arrangement with the United States Vanadium Company to mine on your mining claims?

A. Yes.

Q. And do you remember under that arrangement that you had an overdraft of about 300,000 pounds?

A. I was told that. I had nothing to do with the arrangement whatsoever.

Q. But you knew that you had an overdraft of 300,000 pounds, didn't you?

A. No, sir, I didn't.

Q. Don't you recall having a discussion of working out a method of getting that overdraft worked out?

A. Yes. But you asked me if I knew it was 300,000 pounds. I didn't.

Q. Yes, sir. But there appears on——

(Testimony of Frederick F. Kett.)

A. I knew there was an overdraft.

Q. There appears to be a letter here from you written in August, 1941, to Mr. Bransome, your president. It's quite understandable you wouldn't remember something that far back. But in that letter you say:

"It is possible that Van Fleet may present some sort of a concrete proposal on the subject of the Dry Valley contract assignment before my return to New York from Colorado. It occurs to me that it may be that Dry Valley possibly is looking very sick right now and that the probability of getting even 10,000 tons from it may be very slim. This is probably not so, but it could happen. Therefore, I think that either you or Mr. Gibbons should phone Van——"

and that's Van Fleet, of the competitor——

"——and suggest that his proposal embody the following: The 10,000 tons—or rather, 300,000 pounds of recovered V_2O_5 to be taken from the property before June 1, 1942. If this amount is not taken from the property before that date, then our obligation to return them any further ore in liquidation of the 300,000 pounds of oxide is cancelled."

Now, does that refresh your memory?

A. Yes. But you didn't ask me that.

Q. Well,—— A. You said—— [2024]

Q. Yes, Mr. Kett,——

A. You said at the time that we started to deliver them ore——

(Testimony of Frederick F. Kett.)

Q. Well, I didn't mean——

A. That's long before that letter was written, and at that time I didn't know about the commitments.

Q. Well,——

A. But later on, when you talk about Dry Valley, yes, at that time I knew——

Q. And you knew that you had an overdraft of 300,000 pounds of oxide which you had acquired from the other company?

The Court: Before we enter into Dry Valley——

Mr. Alioto: If your Honor please, I was going to——

The Court: ——we will take a recess.

(Short recess.)

Mr. Alioto: If your Honor please, Mr. Holland has informed me that the chief managing agents of the Vanadium Corporation of America, namely, Mr. Bransome, Mr. Gibbons, and Mr. Laub, will be called to the stand as witnesses, and in view of that I would rather take up these facts with them, rather than to go further with Mr. Kett, although I understand Mr. Holland has a question he would like to ask.

Mr. Holland: Just one question.

Redirect Examination

Q. (By Mr. Holland): Mr. Kett, when you stated that the costs of U. S. Vanadium were considerably less than Vanadium Corporation's, you

(Testimony of Frederick F. Kett.)

were referring to the Vanadium Corporation's costs at Naturita, were you not? A. Oh, yes.

Q. You were not talking about the Peruvian costs? A. No.

Mr. Holland: That is all.

Mr. Alioto: We have no further questions of the witness.

Q. (By the Court): Why was their cost lower than yours? What particular reason?

A. Well, they own their own mines, which were very productive, and were very close to them, and I think most of their tonnage, except what they were buying from the independent miners, was not over about six or eight miles away, and a downhill haul all the way. But we had mines in the same vicinity, and it was a much longer haul to us, and they were nowhere near as productive mines as the ones that they had, so their costs must have been less. Also, they were handling about three times the tonnage per day that we were. So, of course, their costs were less on that basis and for that reason. But they were less—much less.

The Court: That is all. You can stand aside.

(Witness excused.)

PATRICK J. GIBBONS

called as a witness on behalf of the defendants, and being first duly sworn, testified as follows:

Q. (By the Clerk): Will you state your full name and address?

(Testimony of Patrick J. Gibbons.)

A. Patrick J. Gibbons, 41 Constantine Place, Summit, New Jersey.

Direct Examination

Q. (By Mr. Holland): Mr. Gibbons, were you employed by the Vanadium Corporation in 1938?

A. I was. [2027]

Q. When did you first enter the employment of Vanadium Corporation?

A. Well, I first entered the employment of Vanadium Corporation in 1919, but I had been with the predecessor company prior to that. I went into the vanadium industry in 1913.

Q. Will you state the various positions you held with the Vanadium Corporation through the years?

A. I started as paymaster, and then around about 1920 I was works accountant, later plant auditor.

In 1926 I went to New York as assistant treasurer, and about the same year became assistant secretary and assistant treasurer. And in 1930 I became secretary-treasurer and held that position until 1943, when I became executive vice-president, which position I held until my retirement in 1952.

Q. Will you describe for the jury the problems involved in going into the vanadium business, and in a general way tell them what it is all about? They may not have entirely clear the picture.

A. I can't do it in a few words, but I will do my best.

Vanadium is a business in which the product,

(Testimony of Patrick J. Gibbons.)

to begin with, does not sell itself, so therefore, in my explanation, I am going backwards. I will start with the first important need in the business.

Q. We had better not go prior to the year 1938.

Mr. Alioto: Yes, we will agree with that.

A. When I say I go backwards, I mean in my statement, not in time. Anything I say will apply to the years 1938 to 1949, inclusive. What I mean is I want to start at the end instead of the beginning with the sales and service departments, who built up the demand for the product, vanadium.

Now, the sales department, in addition to the usual salesmen who knock at the doors of the directors of purchase and the general purchasing agents, also have a department of highly trained technical men. These men go into the mills where they consult and advise and take off their coats and help the melter or advise the metallurgical engineer or metallurgist, whoever is there, in the applications of vanadium.

In addition to that there is another department, which is helpful, but not within sales—that is the research and development of new products. Research and development, they work on new applications, new alloys. And with the help of new products, or applied metallurgy, which you call the boys in sales, will discuss with the technical men in the steel companies not only the application of ferro alloys to their industry, but new uses for it, and will go so far as, if they themselves, in their laboratory, have an idea of a new alloy steel, vana-

(Testimony of Patrick J. Gibbons.)

dium steel, they will make small heats in little loop pots about this big (indicating), and if they are satisfied as to the steel they have gotten from them, they will go into a mill and make arrangements with the steel maker to make them a commercial heat, which, if it is possible, they will just have laid the groundwork to have some user of steel—I mean, now, the consumer, the customer of the steel company—take that heat and use it in his application. It may be an automobile industry, railroad, or the tool industry.

If that arrangement cannot be made, they will have the heat made, anyway, and we, the Vanadium Corporation, will then pick up the slab or billet resulting from that heat, and we would store it in our warehouse. In my day that was at Bridgeville, Pennsylvania. And over the years they would have these different steel billets piled up there, and if at any time a consumer had an idea about a new steel, he would call in to our research people, or they would be calling on him, and after discussion every once in awhile you would see a crane pulling one of those billets out of the pile, and they would ship it to the consumer. Generally that was done without cost to the consumer and was an expense to the corporation.

In addition to that its research group worked on pamphlets and handbooks and the like, and we have one handbook of which the research people, and I think the corporation as a whole, is very proud. It is called "Vanadium in Iron and Steel."

(Testimony of Patrick J. Gibbons.)

And we have been told by some of our steel-making friends that their smelters have made presents of this [2030] handbook, and they use it just as that, as a handbook. That is what makes the vanadium business. There has got to be a demand for it. It doesn't sell itself.

The next part, and an important part, is the subject of ore reserves. As you have no business unless there is a demand for your product, you have no product unless you have ore reserves.

Mr. Alioto: Your Honor, I am loathe to interrupt at this point, but it seems that this is a long narrative statement containing conclusions and hearsay, and it isn't proper. I suggest that questions and answers be asked.

The Court: I do not know of anyone who is in a better position to tell the Court and jury what they ought to know and what they would like to know about this very important subject. I see nothing improper about it. Overruled.

Proceed.

A. (Continuing.) The ore reserves.

The ore reserves have come into this lawsuit, and they are very important—not only very important, but necessary. And quite a bit of money can be tied up in your ore reserves. My own company, in 1938, decided to go into the Colorado Plateau, and we had to start at scratch. We had just a few ore bodies out there that had been with us since 1919, and maybe 1930 or something.

And so we had to contact independent miners.

(Testimony of Patrick J. Gibbons.)

Our men had to scour the whole Plateau looking for locations that were free in order to locate, develop, and see if you had mining properties in the beginning, and trying to operate a 100-ton-a-day mill. That was quite a problem.

But we finally got our reserves in shape so we were able to be listed, about the end of the war, as about a 750-ton-a-day operation. That was in two plants, one at Naturita and one at Durango, both in Colorado.

Now, you have your ore reserves, which costs you a lot.

The next step, a very important step, but not as important as reserves and the market, is the leaching plant. The leaching plant is the plant to which you feed the raw vanadium ore. And by what is called the roast-quench-leach process, you subtract the vanadium values from that raw ore in the form of fused black oxide, fused pentoxide, or just oxide. You hear the terms intermingled. It all means the same thing. That is what we consider an intermediate product, the product from which we make our end product, which is ferro-vanadium.

Ferro-vanadium is produced either by the alumina thermit method—that is, melting with aluminum, getting the heat from the aluminum—or the electric furnace, where the arc produces the heat.

The electric furnace is an expensive installation. Power, alone, in an electric furnace is very important, because when you contract for power you

(Testimony of Patrick J. Gibbons.)

contract to take so many units of power for a certain period of time—a month—well, if you contract for 12,000 kilowatts, you take 12,000 kilowatts, or you pay for about 60 percent of it whether you use it or not. And so that becomes expensive.

That is where the danger of an intermittent operation hits the operator.

Now, we have ferro-vanadium, which is turned over to the sales department, who now have to build, and have built, a market to which they sell it.

All of this costs money. It takes a considerable investment to get to that point, and it takes a lot everywhere along that line, along that flow sheet, whether in the reduction mill or the leaching plant. You have to have your metallurgists, your engineers, and they have got to control, because if you don't get a 75 percent recovery from your ore—I will illustrate that in figures.

Milling heads, milling ore in the Colorado Plateau will average roughly around two percent, meaning you have 40 pounds to the ton. You must recover 30 pounds of that 40 in your finished black oxide to have what we would consider a good, efficient operation.

All of this costs money, and that is my story of vanadium. [2033]

Q. (By Mr. Holland): Mr. Gibbons, Mr. Alioto put some figures on the board here—ore we had purchased from U. S. Vanadium. You will notice a figure in 1938 of 130,052 pounds. Is that figure correct? A. Yes.

(Testimony of Patrick J. Gibbons.)

Q. And during that same year was the Vanadium Corporation's mine in Peru in operation?

A. Yes, it was.

Q. And have you figured how much vanadium we brought up from Peru for our needs?

A. I have no figure with me, but I know the figure.

Q. Do you know the figure?

A. Yes. It was about one million and three-quarters pounds of vanadium contained, which would be about three and a half million pounds of V_2O_5, which you have there. That is V_2O_5.

Q. That would be three and a half?

A. About three and a half million.

Q. And for the year 1939 there is a figure of 517,000.

Do you mind if I erase some of this?

Mr. Alioto: No objection at all. [2034]

Q. 847 Palms—I believe it was testified that that was Maggie C. ore——

A. It's 848, just to be correct.

Q. 848.

Do you mind if I change that?

Mr. Alioto: No, not at all. Change it down below to. You have to make the addition conform.

The Court: That question I didn't understand. What was the amount in 1939?

Mr. Holland: 517,848 pounds from the Maggie C. operation.

Q. Is that correct?

(Testimony of Patrick J. Gibbons.)

A. There is missing there (on the blackboard) about 77,500 of direct purchases that year.

Mr. Holland: Those are direct purchases from U.S.V.

A. Direct purchases from U.S.V.

Q. At various prices.

A. That special order had three prices on it; it had 80c, $1.10, $1.18.

Q. Now, during that year how much did we bring up from Peru?

A. V_2O_5, about four and a half million.

Q. Four and a half million V_2O_5?

A. Yes.

Q. And in the year 1940 there is 200,000 pounds? [2035]

A. Yes. The balancing figure from the Maggie C.

Q. That was taken out of Dry Valley?

A. Some of it from Dry Valley, yes.

Q. And during that year how much did you bring up from Peru?

A. Two million nine, roughly, in V, which would be five million eight.

The Court: Where did you process this ore that you brought from Peru?

The Witness: At Bridgeville, Pennsylvania; in our reduction plant there.

Those figures, Mr. Holland, I have rounded them out. I haven't held them to the pound.

Q. (By Mr. Holland): What?

A. I say, I haven't held them to the pound.

The Court: That's approximately?

(Testimony of Patrick J. Gibbons.)

The Witness: They are approximate figures, but within five—less than 5%.

Q. (By Mr. Holland): So that approximately 925,000 pounds was purchased from U.S.V. during those three years, is that correct?

A. That's correct.

Q. And at the same time 13,800,000 pounds were brought up from Peru, is that correct?

The Court: Is that correct? [2036]

The Witness: Yes.

Q. (By Mr. Holland): Now, do you know during those three years how much vanadium oxide was sold to the French Government at the request of the U. S. Government?

A. I can give you the total. I think the shipments were made in '38 and '39, approximately 712,000 pounds of contained V_2O_5 in concentrates and high-grade ore. That's included in the 13,800,000.

Q. Then without that shipment to the French Government we would have attained approximately all of our requirements from Peru, is that correct—could have?

A. We could have. In other words, the purchase for the oxide on the Maggie C. agreement just about equalled what we shipped direct from Peru to the French.

Q. Do you remember what price that was sold to the French at?

A. I think there were two prices there, 72c and 76c per pound.

(Testimony of Patrick J. Gibbons.)

Q. Now, Mr. Gibbons, we have heard a lot about Maggie C. and nobody seemed to know very much about her. Could you tell us anything about Maggie C.?

A. Well, tell Mr. Alioto I was introduced to the sinister lady.

Mr. Alioto: Nobody else knew her.

The Witness: That Maggie C. was a contract which we referred to as the Maggie C. contract. A certain ore body which was owned by the Vanadium Corporation was adjacent to the mine workings of the U.S.V. and in 1939, with the authority of our board of directors, Mr. Bransome negotiated an agreement. The negotiations took place between Mr. Bransome for Vanadium—he was President of the Vanadium Corporation—and Mr. Van Fleet, who was President of U.S.V.

Under this agreement U.S.V. were to mine the Maggie C. and convert the raw ore to finished black oxide, using the 75% recovery figure which I mentioned before, which means that for every pound they took out—they got 40 pounds, but they had returned to us 30 pounds in the form of black oxide.

Now, the handling——. Oh, this contract was a toll agreement, so-called, and for every pound that they presented to us or shipped to us we paid 65c a pound V_2O_5 contained in oxide with the proviso that if their cost increased we would pay 75c per pound of V in black, and I believe the terms of the contract was five years.

(Testimony of Patrick J. Gibbons.)

It was a simple, little—less than two-page contract, just more a memorandum agreement than a contract. That is the part of the Maggie C. contract.

Now, the taking of the oxide under that contract was between the Vanadium Corporation and the Electro Metallurgical Sales Corporation, because Electro Metallurgical Sales sold all the products of U.S.V., so that any drawings under [2038] that or requisitioning was requisitioned against Electro Metallurgical Sales. I didn't requisition it because at this time I was in charge of procuring raw materials, such as vanadium ore and chrome ore, for the operations.

The Court: But the point here, the point I think the jury and the Court want to know, why were you making a contract with this other company. Why didn't you handle it yourself?

The Witness: We didn't have a treatment plant in Colorado at the time. Our treatment plant in Colorado was not built I believe until 1940, sometime in 1940, and we had an old plant that was not fit for operation, and in '39——

The Court: Did you consider it a good business proposition from your standpoint to make this arrangement with the other company?

The Witness: From our standpoint, the standpoint of Vanadium Corporation, I considered it an excellent proposition.

The Court: Proceed.

Q. (By Mr. Holland): Now, under this Maggie

(Testimony of Patrick J. Gibbons.)

C. arrangement we were—V.C.A. were furnishing its own ore, is that correct?

A. Oh, yes; the Maggie C. property belonged to the Vanadium Corporation, and the 65c or the 75c we paid was just for the tolling of the ore, the running of it through their [2039] leaching plant.

Q. In the nature of a toll charge, is that correct?

A. In the nature of a toll charge.

Q. Now, I believe V.C.A. took deliveries of oxide ahead of the mining of the ore, is that correct?

A. Yes. That is the fact. I would requisition the New York office of Electro Metallurgical Sales for shipments, and they kept the shipments rolling along until one day they said, "Wait a minute, boys. You're getting away ahead of yourselves," and that is the 1940—the 200,000 pounds—that was the last requisition they accepted from us under the Maggie C., and that was shipped to us I believe over the first half of 1940, the last shipment being received in June. And then they said, "Now, we are in a position where you have taken nearly twice as much in oxide as we have taken in ore, so until we get that in balance no more oxide." So they proceeded to still work the ores from the tonnages they took out in a rather leisurely fashion and they worked the full year, finishing out the year 1940; they worked all the year '41, and were in two or three months of '42 before they reached the 717,848 which we had taken from them. Now——

Q. They first worked out the Maggie——

(Testimony of Patrick J. Gibbons.)

A. I was going to say, the Maggie C. had gone out of the picture before that and a supplemental agreement was made covering certain claims of Dry Valley, and the final tonnages [2040] of ore to meet —to balance out what we had taken from them— came from the Dry Valley deposits.

Q. Now, if V.C.A. had been unable to make the deal with U.S.V. to buy this oxide during 1938-1939-1940, could it have brought that oxide up from its own Peruvian mine?

A. Yes. But there is a point there, too. It could be brought up. It would be in the nature of high grading a mine, taking out the richer ores, which you like to hold to average the ores which may be lower.

As a matter of fact, under the pressure of the war after 1941 we brought up big tonnages of that raw ore to run here through a plant which we built at Bridgeville, and we could have done it at that time, we could have enlarged our leaching plant at Bridgeville, which was done later, but right at this period it was much more—we thought it better business for us to buy as long as we could and work the agreement, the toll agreement at Maggie C., rather than to bring up that richer ore and put the money in the increased leaching plant.

Q. Mr. Gibbons, you spoke about "under pressure bringing up ore from Peru during the war." Was Vanadium Corporation under pressure from the Government to produce as much vanadium and ferro-vanadium as it possibly could?

(Testimony of Patrick J. Gibbons.)

A. Yes. There was a gentleman in the old O.P.A.—his name was Harry Masters—I believe his name has been mentioned before—who was the—— [2041]

Q. You said the O.P.A. You mean the O.P.M.?

A. O.P.—Office of Price Administration—wasn't it?

Q. Wasn't he in the Office of Production Management? A. Maybe that was it.

Q. I show you (handing witness document)——

A. I get mixed up on those alphabetical outfits. (Examining offered document). Office of Production Management, that's it.

Mr. Masters called on us regularly. He was in my office at least once a week, usually on Monday morning, because I think he lived in New York and he used that as an excuse to spend the week-end in New York: He had to see me on Monday morning. But he pressed us and told us at one time that he expected seven million pounds of contained V in ferro-vanadium to be produced by the industry in 1942, of which he was asking the Vanadium Corporation to increase their production until we would hit the four million pounds of contained vanadium in ferro, and we had to go through various maneuvers to do that, to bring up the richer ore, increase the capacity of our leaching plant at Bridgeville. We finally made an agreement with the Defense Plant Corporation and built a plant for them at Monticello, Utah.

Q. In connection with that did you receive a

(Testimony of Patrick J. Gibbons.)

letter from Mr. Masters dated August 21, 1941 (handing document to witness)?

A. (Witness examining.) This is Mr. Masters' letter. [2042] Addressed to the attention of Mr. Bransome, in which he refers to a conference held in my office, between myself, Gus Laub, who was then our General Manager of sales, and Jerome Strauss, our chief research man.

Q. As a result of this conference or as a result of this letter was the Monticello plant built?

A. I think it was after the receipt of that letter and through the action of Mr. Masters' department that Mr. Bransome called on Mr. W. O. Clayton, who I believe was at that time—he was in O.P.M.—he was with Jesse Jones—and that was the beginning of the discussions of Monticello.

Mr. Holland: Offer in evidence as Defendants' next exhibit.

Mr. Alioto: If your Honor please, there is no basis in evidence for admitting a document which was written by a Government official to a Mr. Bransome, no basis that I know of.

The Court: Objection overruled. Exception allowed.

(Letter dated August 21, 1941, from Masters to attention of Bransome, received in evidence and marked Defendant V Exhibit 2-O.)

Q. (By Mr. Holland): Mr. Gibbons, this letter refers to a conference in which you were, does it not? A. Yes, it does. [2043]

Q. In the course of your regular duties at Vana-

(Testimony of Patrick J. Gibbons.)

dium Corporation was this called to your attention at the time it was received?

A. It was.

Q. It says:

"Dear Mr. Bransome:

"Subject: Vanadium increase in production.

"Confirm telephone conversation with your good self this afternoon and referring to a conference held in the office of your company last Friday between Messrs. P. J. Gibbons, Gus Laub, Jerome Strauss——"

Who is Jerome Strauss?

A. Jerome Strauss was head of our Research Department, Research and Development.

Q. (Reading.) "——Jerome Strauss and myself, it has been fully explained to your company the present supplies of vanadium available to this country, both domestic and foreign, will fall far short of the quantity which this office is asked to supply during 1942. Estimates of consumption for 1942 have been furnished to your company, and while it may not be possible next year to reach the estimated requirements it is absolutely necessary that every effort be made by producing companies to approach as [2044] nearly as possible the estimated requirement figure of 7,000,000 pounds.

"From information furnished us by your officials named above your present production rate, including products both from domestic and Peruvian sources, is about 2,700,000 pounds. We understand that it may be possible for your company to achieve

(Testimony of Patrick J. Gibbons.)

by the end of this year a production rate of 3,000,000 pounds."

Now, is he talking about contained V in ferro-vanadium?

A. Contained V in ferro-vanadium, yes.

Q. And that would be the equivalent of about 6,000 pounds of oxide—I mean 6,000,000 pounds?

A. Are you referring——

Q. I am referring to——

A. It would be just double. [2045]

Mr. Holland: (Reading)

"This office requests that you increase this by 1,000,000 pounds so that during the year 1942 your company's production may reach 4,000,000 pounds. This, of course, means pounds of vanadium content."

I need not have asked the question, for he answered it in the letter.

"The undersigned has been under the impression that your quickest available source of an increased supply of vanadium would be from your Peruvian property, but in our telephone conversation today you state that this is not the case. We trust, however, that you will make every effort to increase your output from Peru as much and as quickly as is humanly possible.

"Production from your properties in Colorado and from ore which you purchase in both Colorado and Utah, as we understand, is limited only by treatment facilities. We trust that you may provide without delay the necessary equipment to in-

(Testimony of Patrick J. Gibbons.)

crease your domestic production so that the total increase in production of your company may not be less than 1,000,000 pounds in 1942."

Q. Now, by "treatment facilities" what was he referring to?

A. He was referring to our leaching plant in Bridgeville, [2046] our Naturita plant, because there was no question about the reduction end of our business. It was the leaching end that would be the bottleneck.

Q. The production of oxide?

A. The production of oxide, yes.

Mr. Holland: "Because of the vital interest of this office in increasing vanadium production we are prepared to recommend to the Reconstruction Finance Corporation such financing as your own company may not be prepared to assume.

"We have made an appointment for Mr. Bransome to discuss this matter with Mr. William L. Clayton, Deputy Federal Loan Administrator, at his office in the Lafayette Building next Tuesday afternoon, August 26th, at 3:30 o'clock.

"As the undersigned will not be in Washington next week, his assistant, Mr. E. K. Jenckes, will be at your service next Tuesday, since I assume that you may wish to discuss this matter with Mr. Philip D. Reed and Mr. Jenckes before your interview with Mr. Clayton. Mr. Jenckes will be glad to accompany you when you have your conference with Mr. Clayton."

(Testimony of Patrick J. Gibbons.)

Q. Mr. Gibbons, as a result of this conference and letter was the Monticello plant built?

A. Yes. What is the date of that letter, Mr. Holland? [2047]

Q. August 21, 1941.

A. Yes. Well, in the month of December, 1941, there was an agreement drawn up between the Defense Plant Corporation and Vanadium Corporation in which Defense Plant Corporation would put up or appropriate the sum of $1,200,000 to build a plant at Monticello, which the Vanadium Corporation were to operate.

Q. What other steps did Vanadium Corporation take to meet this 4,000,000-pound quota which was set by the government?

A. Well, as I said before, we had a 25-ton leaching plant at Bridgeville. Now, a 25-ton leaching plant in the Colorado Plateau is a small plant, but at Bridgeville it was a large plant because it was taking 13 and 14% V — not V_2O_5 — but 26% V_2O_5 into the bath.

Q. That is from Peruvian ore?

A. From Peruvian ore. That is about thirteen times the value of Colorado raw ores, which means that that 25-ton plant would be the equivalent roughly at least of a 250-ton plant, because the ore will go through faster.

Q. What was your policy in respect to purchase of ores, oxides and raw materials from other people?

A. In the purchase of raw materials—vanadium-bearing raw materials—we bought practically any-

(Testimony of Patrick J. Gibbons.)

thing. I did it personally. We bought flue dust, we bought sludges from chemical plants. Anyone that would come around and said they [2048] had anything that might be as high as 10% V_2O_5 in their material we would deal with them, and we introduced into our operations at Bridgeville flue dusts, various sludges, slags, and the like, which we purchased in the open market.

Q. (By the Court): What disposition did you make of your product?

A. Our product, ferro-vanadium, was sold direct to the steelmakers to be introduced into the steel bath.

Q. Was it allocated?

A. It was during the allocation years, yes.

Q. (By Mr. Holland): Mr. Gibbons, did you ever know or hear of any agreement between Vanadium Corporation of America and Union Carbide or any of the Union Carbide group respecting the monopolization or attempt to monopolize the vanadium market?

Mr. Alioto: What period are you referring to, Mr. Holland?

Mr. Holland: During the period 1938 to 1949.

A. Of my personal knowledge, nothing. I neither knew of any such arrangements nor heard of it from any other member of our organization.

Q. Did you ever know or hear of any such agreement respecting the prices to be paid for ferro-vanadium or vanadium products of any kind?

A. I did not. I never heard of it. [2049]

(Testimony of Patrick J. Gibbons.)

Q. Did you ever hear of any such agreement respecting the division of the vanadium market between the companies in any way?

A. No, never did.

Q. Did you ever hear of any agreement or any policy on the part of the Vanadium Corporation to exclude Continental Ore Company or anyone else from the vanadium business?

A. Not to my knowledge. To my knowledge there was no such arrangement.

Q. You never heard of it?

A. Never heard of it.

Mr. Holland: That is all.

Cross-Examination

Q. (By Mr. Alioto): Mr. Gibbons, how much of the ferro-vanadium market is controlled by the two companies, V.C.A. and Electro Metallurgical Company?

Mr. Holland: Are you speaking of now or——

Mr. Alioto: Between 1938 and 1949.

The Witness: I would say the two companies controlled better than 95% of it.

Q. (By Mr. Alioto): Except for the Continental Ore Company, for the period between 1938 and 1949, you had a hundred percent of it, didn't you, of ferro-vanadium production and the ferro-vanadium sales? [2050]

A. Well, with the exception of a few little drabs like the Castleton outfit, which has been named here before, I believe that is substantially correct.

(Testimony of Patrick J. Gibbons.)

Q. Did Castleton produce ferro-vanadium?

A. They produced black.

Q. Black fused oxide?

A. Black fused oxide.

Q. Ferro-vanadium was 100%, not 99.9, was it not? A. Oh, ferro-vanadium?

Q. Yes.

A. You see, I was thinking in the line of the vanadium industry. Ferro-vanadium I would say yes.

Q. 100% between the two of you?

A. Yes. Yes, pretty close.

Q. And generally you had two-thirds of that production and Electromet about one-third, isn't that about the proportion?

A. Well, I wouldn't know that. We would try to guess what proportion we had. We knew—felt we knew from the inquiries our sales people made and investigations that we had the greater portion of it, but the exact percentage we had, that we wouldn't know, because we would lose business in one year and get it back another year. But I don't know what percentage that we could claim we had.

Q. Now, then, turning to vanadium oxide between the two companies, including what you produced and what you purchased [2051] from other sources, you had about 97 to 100% of the vanadium oxide, didn't you, in the period from 1938 to 1949?

A. I wouldn't dispute those figures, although I wouldn't say yes or no to them.

Q. That sounds about right to a man who has

(Testimony of Patrick J. Gibbons.)

been in this industry so long and knows the conditions? That is about right, isn't it?

A. I wouldn't dispute your figures.

Q. Did you say that the Government wrote you a letter in August, 1941, telling you you had to increase your production facilities? Isn't it a fact that two months prior to that time Mr. Bransome went down to Washington and told them that they did not have to increase domestic production facilities?

A. I couldn't answer to that. I wasn't with Mr. Bransome.

Q. Didn't you ever hear in the organization that Mr. Bransome went down to Washington and told the people in Washington that they did not need to increase domestic production facilities? Didn't he ever tell you that?

A. At this time the war was coming on and Mr. Bransome was in Washington almost all his time. I saw him possibly once a week, and at that time it would just be probably to put me on the pan for what I had done wrong while he was away.

Q. Then your answer is, you never knew Mr. Bransome was down in Washington in June of 1941 and told the Government representatives that there was no need to increase domestic [2052] production of vanadium?

A. Not as a general—I don't know that he ever made any such statement as that, as a general statement.

(Testimony of Patrick J. Gibbons.)

Q. Well, did he make it as a particular statement?

A. I say I don't know whether he did or not.

Q. In any event, you say there came a necessity in August, 1941, which you recognized to increase production facilities and to get all the ferro-vanadium that you could possibly get, is that it?

A. It wasn't a situation that we recognized. It was a situation that was brought to us by the O.P.M.

Q. When it was brought to you, then you recognized it?

A. Well, a war was approaching and I, if I may go beyond here, had gone through the first world war in the vanadium business.

Q. Yes.

A. And I knew exactly what would happen, and the same thing did happen.

Q. At the time that you realized that this was going to happen, and you knew exactly it was going to happen, there was a little struggling outfit in Chicago called the Apex Smelting Company that was producing ferro-vanadium, wasn't there?

A. I have heard of Apex only since this Denver suit and this one. I personally did not know Apex.

Q. You knew that that company through Continental made an [2053] offer to the Vanadium Corporation of America to put its facilities at the disposal of the Vanadium Corporation of America so that they could use their production facilities in

(Testimony of Patrick J. Gibbons.)

producing ferro-vanadium to the fullest capacity; you know that, don't you?

A. That didn't come to me. I heard that there was some correspondence to that effect, but at the time that this is supposed to have happened I had no knowledge of it.

The Court: Well, we will recess at this time until nine-thirty tomorrow morning.

(Thereupon an adjournment was taken until 9:30 o'clock a.m., Friday, June 20th, 1958.)

Friday, June 20, 1958, 9:30 a.m.

PATRICK J. GIBBONS

a witness called by and on behalf of the defendants, having been previously duly sworn, resumed the stand and testified further as follows:

Cross-Examination—(Continued)

Q. (By Mr. Alioto): Mr. Gibbons, yesterday afternoon you testified that in August of 1941 you had a conference and thereafter received a letter from Mr. Masters who was a government official in which he urged upon you the absolute necessity of using production facilities to the fullest.

Do you recall that general situation?

A. Yes, I do.

Q. Now then, do you recall that at or about that time you had a request from the Apex Smelting Company to farm out—that they were willing to

(Testimony of Patrick J. Gibbons.)

let you use their facilities for the purpose of producing ferro-vanadium?

A. I didn't know it at the time, but I have learned of it since that the request was made.

Q. Did you participate in the decision not to use those production facilities of the Apex Smelting Company?

A. I believe I did. They were not the facilities that we needed. Apex didn't have a leaching plant. They had a [2056] reduction plant. And we had full facilities for the reduction.

Q. Well, did your organization examine the type of ferro-vanadium that was produced by the Apex Smelting Company at the time?

A. That I don't know.

Q. Did you inquire as to whether or not its ferro-vanadium had been cleared by the government as ferro-vanadium of sufficiently good quality to be sold to the government?

A. I personally did not. It would be within my province.

Q. As a matter of fact, I take it that decision not to use those facilities was not made by you, it was made by Mr. Bransome, wasn't it?

A. I really don't know who made it. I did not participate in the decision.

Q. Now then, you were told to use these production facilities—the production facilities should be used as much as possible. In view of that, why did you go out and take the Blanding production away from Apex?

(Testimony of Patrick J. Gibbons.)

A. I can't answer anything in regard to Western operations.

Q. All right.

A. And the building up of supplies in the West.

Q. Mr. Gibbons, I show you a copy of your minutes of [2057] May 7, 1942, and ask you if you will be good enough to examine those minutes and then state whether that is your signature on those minutes.

A. (Examining.) That is my signature, as secretary of the board of directors.

Mr. Alioto: Thank you, Mr. Gibbons.

We will offer this in evidence, if your Honor please, because it sets forth some of the contract terms in connection with the Blanding transaction. You recall yesterday we couldn't get that——

Mr. Archer: This isn't being offered against the Carbide Company?

Mr. Alioto: No.

Mr. Holland: No objection.

(Minutes, May 7, 1942, received in evidence and marked Plaintiffs' Exhibit No. 160.)

[See Book of Exhibits.]

Mr. Alioto: Mr. Holland, the date of May 7, 1942, was inserted on that as a result of a telephone call with Mr. Meir, who, I think, gave us that date.

Mr. Holland: Mr. Meir, not Mr. Leir.

Mr. Alioto: Yes. Subject to any correction, I take it we can stipulate that that date set forth there in pencil is the correct.

Mr. Holland: It looks about the correct date.

(Testimony of Patrick J. Gibbons.)

Mr. Alioto: The minutes of the board of directors of the Vanadium Corporation of America at this point read as follows:

"The President reported the Corporation had entered into an agreement to acquire vanadium ore property in Blanding, Utah. He stated such agreement contemplated royalty payments of five cents per pound of contained V_2 in ore produced, with an advance royalty payment of $20,000 at time agreement was consummated. He stated it was planned to treat the ore mined from this property in the plant now under construction at Monticello, Utah."

Now, do you know, Mr. Gibbons, whether or not you actually mined quite a quantity of ore from those claims for use in your Monticello plant?

A. I believe we did.

Q. And this was the ore that you—this was the claim that you purchased under the so-called Garbutt transaction that we spoke of yesterday?

A. Yes, they were the Garbutt claims.

Q. You testified at some length yesterday, Mr. Gibbons, as to what it takes to get into the vanadium business. Isn't it a fact that an undertaker out of Pittsburgh started the Vanadium Corporation of America with $20,000?

A. I would say no, it is not a fact.

Q. Was there a Mr. Flannery who started that company? [2059]

A. I knew him for years.

Q. And——

(Testimony of Patrick J. Gibbons.)

A. He was my first boss.

Q. He was also Mr. Burwell's boss in the Standard Chemical Company, wasn't he?

A. No.

Q. Didn't he later go into the Standard Chemical Company?

A. No, that was Mr. Joseph Flannery.

Q. Well, there were two brothers?

A. Yes.

Q. All right.

A. James J. was the original vanadium man. Joseph was the Standard Chemical man.

Q. Well, his brother was also with him in the Vanadium Corporation, was he not?

A. Yes, but James J. was never with Joseph in Standard Chemical.

Q. All right. But one of the Flannery brothers who started the Vanadium Corporation of America, after he sold out, went with Standard Chemical?

A. That's right. That was——

Q. Wasn't there a deal made at that time that having left——

Mr. Holland: Your Honor, we are getting about 20 years before 1948. [2060]

Mr. Alioto: This man testified at length as to what it takes to get into the vanadium business.

The Court: I have ruled not before 1938 and I don't want to have to repeat that again.

Mr. Alioto: Well, I didn't--he testified at length as to what it took to get into the vanadium business.

(Testimony of Patrick J. Gibbons.)

and I was simply trying to show how the Vanadium Corporation started.

The Court: You are leading into something else.

Mr. Alioto: All right. I take it, without the necessity of making an offer, that I may not inquire into whether or not the Vanadium Corporation was started with $20,000 just prior to the First World War?

The Court: No. We don't—we want to know what happened in '38.

Mr. Alioto: All right.

The Court: I can't see how it would be material what happened here when your client is still in Europe at that time.

Mr. Alioto: Your Honor let this witness testify at length as to what it takes to get into the vanadium business. Now, the best evidence of what it takes——

Mr. Holland: What it took in 1938.

Mr. Alioto: The best evidence of what it takes to get into the vanadium business is what the Vanadium Corporation got in for, the $20,000 we are speaking of, but I won't argue the point further. I understand your Honor's ruling on it.

Mr. Holland: You have got an exhibit in evidence that shows it cost three million for the Vanadium——

Mr. Alioto: 20,000 is what you started it with. In any small beginning——

(Testimony of Patrick J. Gibbons.)

The Witness: But the 20,000 isn't a correct statement, if I may say so.

Mr. Alioto: Well, maybe—may we go into that? May we go into that?

The Court: What is it?

Mr. Alioto: The witness says that 20,000 isn't correct.

The Court: He just answered your question.

Mr. Alioto: All right. If your Honor please, we will go on to another subject.

Q. Now, as a matter of fact, 1938 was kind of a recession year, wasn't it, business wasn't very good in 1938?

A. Business was not as good in '38 as it had been in '39. It was not a recession. Call it a dip in business.

Q. Well, whatever we call it, 1937 was certainly a recession year, wasn't it?

A. It was a good year, '39 was a good year, but in between '38—— [2062]

Q. There was a dip? A. That's right.

Q. Now, in the light of looking back at that situation now, from what we know today, that was a very fine time to get into the vanadium business, wasn't it?

A. Well, I wouldn't say it was a good time. I wouldn't think that a recession time would be a good time. Anyone breaking in should break in on the boom, not on a recession.

Q. Anyone breaking in should break in just before the boom, isn't that the way it should be?

(Testimony of Patrick J. Gibbons.)

A. If they are bright enough to know when the boom is coming.

Q. That's right, and be carried with it?

A. Yes.

Q. Now then, actually shortly after the beginning of 1938 export prices for vanadium went to $1.70 for the vanadium acid and $3.00 for the ferro-vanadium, f.o.b. New York?

A. I couldn't say of my own knowledge, but I believe that your figures are substantially correct.

Q. And so that export market afforded a wonderful opportunity for anybody getting into the business at that time to establish himself firmly in that business, didn't it?

A. Well, you continue to use the expression "getting into the business." If "getting into the business" means purchasing and acting as a broker, I don't talk about that as getting into the business. That I would refer to as attempting to skim off the cream of the business.

Q. All right.

A. Getting into the business means building mills, ore reserves, building an organization to work with the steel companies, that would be getting into the business.

Q. Let's assume that getting into the business involved making a contract for the production of ferro-vanadium and making contracts for oxide supplies. You have no objection to anybody starting into a business in that fashion, do you, Mr. Gibbons? A. No.

(Testimony of Patrick J. Gibbons.)

Q. It happens every day in American life?

A. They are always buying from the small contractors. They must be handled.

Q. And even big business sometimes starts from very small beginnings, doesn't it?

A. Oh, yes.

Q. And that little trickle of little business then becomes big business and that's the story of America, isn't it, Mr. Gibbons?

A. That's the story of America.

Q. You have no objection to it, do you?

A. No. [2064]

Q. Now then, how long did that export remain at $1.70 for vanadium oxide and $3.70 for ferrovanadium?

A. Mr. Alioto, I know nothing about the export market. That will have to come from other members of our organization.

Q. You yourself have never participated in any transactions whereby the Vanadium Corporation of America and the Electro Metallurgical Company on the other hand worked together on export orders?

A. No, not personally.

Q. And you know nothing about that?

A. Know nothing about the workings of it.

Q. I didn't say whether you know anything about the workings of it, Mr. Gibbons. You say you know nothing about that?

A. I know that shipments were made, arrangements were made to ship abroad, but I know

(Testimony of Patrick J. Gibbons.)

nothing about the negotiations that let up to the actual production and shipment of the material.

I want to explain that never in my connections with the company was I ever in the sales department. I was the operating man.

Q. You know that Mr. Bransome arranged with Mr. Sneath to kind of split export orders, don't you, in the period from 1938 to 1940?

A. I do not. [2065]

Q. You never heard of that?

A. Not as you stated, no.

Q. Well, you say not as I stated. Do you know of any collaboration——

A. I know that shipments were made, but whether it was collaboration or agreement to split those, I must emphatically say, no, I know nothing about it.

Q. Do you know they were joint shipments, that is, where you took half and Electro Met took half, and Mr. Bransome arranged for the whole thing?

A. No, I don't. I know Mr. Bransome made arrangements, but as to whether he made them with Mr. Sneath or not, I must say I know nothing of that personally.

Q. Do you know whether he made them with anybody in Electro Met? A. I do not.

Q. Do you know a French company named Eugine, (spelling) E-u-g-i-n-e?

A. Eugine, no.

Q. Do you know a man named Painvin, (spelling) P-a-i-n-v-i-n?

(Testimony of Patrick J. Gibbons.)

A. Painvin — wasn't he with Electro-Chimie — Societe d'Electro-Chimie?

Q. Yes.

A. I knew and had met Painvin several times.

Q. And was Mr. Bransome an agent in America for Mr. Painvin?

A. I believe you are talking of the war years.

Q. I am talking about 1939.

A. We knew—let me put it, we knew Electro-Chimie, we worked with Electro-Chimie, we worked under patents acquired from Electro-Chimie.

I might say that our contact with Electro-Chimie was close. And if Mr. Bransome worked as an agent for Painvin, or for Electro-Chimie, I don't believe there was ever a contract to that effect. Mr. Bransome will have to testify to that.

Q. Does Electro-Chimie have office space in your building in New York, did it ever have?

A. They did not have when I left the company in 1952.

Q. Do they have now?

A. I have never met any Electro-Chimie people in the New York office. Now, I won't say they don't have space there, whether they rent it from Vanadium or it is separate space, there is a secretary and one man in an office on the same floor as the Vanadium in the Graybar Building.

Q. And they were there during your time?

A. No, they were not there in '52. Since '52.

Q. Did you folks at any time after 1943 start

(Testimony of Patrick J. Gibbons.)

producing a ferro-vanadium with a 70 to 80 percent content? [2067]

A. We may have. We would produce any grade of vanadium that a consumer requested. There is no trick in producing a high concentrate. Vanadium reduced is just a question of whether you increase or decrease the iron scale in your mix.

Q. Isn't it a fact that after 1945 you started producing more high-grade vanadium than low-grade vanadium, and the situation prior to that time was just the opposite?

A. It would all depend upon the demand.

Q. Well, what is the fact, forgetting about the demand, what was the fact—didn't you start producing the higher grade vanadium after 1945?

A. Our grades gradually went up from—in the '40's—until we were making a 50 to 55. That is my recollection.

Q. Yes. And you have remained with that higher grade ever since, have you not?

A. Well, I don't know what the story has been since '52 to date, but we were making the higher and the lower. We would make anything the customer requested.

Q. Has your company ever sold vanadium oxide for direct reduction to the steel bath?

A. I wouldn't like to say yes or no to that question. I would rather let——

Q. Somebody else knows that?

A. ——let somebody else answer that.

Mr. Alioto: We have no further questions.

(Testimony of Patrick J. Gibbons.)

The Court: What do you know about your relation with the Continental Ore Company, do you know anything about it?

A. I had no relationship at all. I was all the way—I was secretary, treasurer of the company, to '43, and from then on I was secretary-vice-president, and my duties were the operations of the reduction plants of the company, not the leaching plants in the West.

The Court: In any of your business—in any of your relations with your company, did you have any contact in the nature of agreements or anything with the Continental Ore Company?

A. Not——

The Court: Not that you know of?

A. Not to my knowledge. As a matter of fact, prior to 1957, I believe I met Mr. Leir once, and that was a casual meeting, because he called on another member of our organization, who was not there, and I met him through courtesy.

The Court: When was that, do you recall?

A. I don't recall whether it was in '38, '39—it has been some time ago—before the war. But it was not a business meeting in the sense that we were discussing buying or selling.

Mr. Alioto: May I ask the witness, if your Honor please, one further question about identification of initials—it looks like—— [2069]

I have here an inter-office memorandum from Mr. Laub called the special report in connection with his dealings with Mr. Christianson of the

(Testimony of Patrick J. Gibbons.)

Apex Company. It is Exhibit 62. And the document is dated April 14, 1942.

Mr. Gibbons, it has some kind of an initial as it appears to me—it's a little hard to read on the photostat. I wonder if you could tell us whose initial that is. It's a little hard to read, I admit, on that photostat.

A. Mr. Alioto, I don't think that is an initial. Someone has just drawn two lines there to indicate this is a paragraph to read. I don't think that is an initial. [2070]

Q. (By Mr. Alioto): You do not think that is an initial that you recognize?

A. It doesn't look like one I know. It isn't mine.

Q. I know it isn't yours. I think as a matter of fact the original letters went to Mr. Bransome. Thank you very much.

The Court: Is there anything further from this witness?

Mr. Holland: No more questions, your Honor.

The Court: You will be excused.

(Witness excused.)

Mr. Holland: Call Mr. Bransome.

EDWIN D. BRANSOME

a witness called by and on behalf of the defendant Vanadium Corporation of America, being first duly sworn, testified as follows:

The Clerk: Will you state your full name for the Court and Jury, please? And your address?

(Testimony of Edwin D. Bransome.)

The Witness: Edwin D. Bransome, Rumson, New Jersey.

Direct Examination

Q. (By Mr. Holland): Mr. Bransome, what is your present occupation?

A. I am in the happy situation of having none. I retired from my last position a few weeks ago.

The Court: What does a man do after he retires?

A. Well, he gets awful upset for a while, your Honor.

The Court: Pardon me for the interruption.

The Witness: I am wondering the same thing myself.

Mr. Holland: I would like to try it some time.

The Court: You would be sorry.

Q. (By Mr. Holland): Mr. Bransome, my questions will be confined to the period 1938 to 1949, unless otherwise specified. Now, in 1938, on July 1st, 1938, what position did you occupy with Vanadium Corporation of America?

A. I was president.

Q. How long did you remain as president?

A. Until 1949, when I became the president of the Mack Truck Company.

Q. And since 1949 you have not been connected with the Vanadium Corporation?

A. Not in any way, through stock ownership, association, or anything.

Q. Pension or anything else?

(Testimony of Edwin D. Bransome.)

A. Yes, I will get a pension from Mack as a contributor to the pension.

Q. From Mack, you say?

A. From Vanadium, that I contributed during my stay with Vanadium. I haven't gotten any yet, though.

The Court: That would help in retirement.

The Witness: It certainly will.

Q. (By Mr. Holland): I am not going to ask any general questions, Mr. Bransome. I will simply confine myself to certain testimony that has been given at this trial.

Mr. Burwell—do you know Mr. Burwell?

A. Yes, sir.

Q. And you knew he was connected with you at Vanadium? A. Yes, sir.

Q. ——testified that in 1940, shortly before the Naturita plant opened, he had a meeting with Mr. Van Fleet and yourself at which an agreement was made between the companies as to what price would be paid to the miners for ore on the Colorado Plateau, that price being 21 cents for two percent ore.

Was there any such agreement?

A. There was never any such agreement.

Q. Was there any conversation between you respecting the price to be paid miners for ore?

A. There was a lot of conversation within our organization, and the policy that I established was that we were not to get into any price war with an outfit that was already established in that district, whereas we had to refurbish complete a mill, go

(Testimony of Edwin D. Bransome.)

out and get claims in the wilds—and I assure you they were the wilds—to locate claims and develop those claims in order to feed that mill.

So my policy was to Mr. Kett, "Don't start any price [2073] war."

Q. Mr. Burwell testified that in 1942, I believe in May or June of 1942, he had a meeting with you in Dove Creek, Colorado, at which were present Mr. Kett, yourself and himself——

A. Who was it who said that?

Q. Mr. Burwell. A. Yes.

Q. And possibly John Hill, and at that meeting you pounded on the table and said, "Mr. Burwell, I am going to pay 31 cents for ore whether you like it or not," and he said, "I will go along with that."

Did any such meeting take place?

A. No such meeting ever took place. I never saw Mr. Burwell in Dove Creek. The report may have gotten out that I said I would pay any price I wanted for ore regardless of anything, if it was necessary to pay such prices to get the ore and keep our mills for the defense effort.

Q. But you had no such meeting in Dove Creek with Mr. Burwell? A. No, sir.

Q. There is further testimony which I wish to go into in some detail. First of all, in 1941, in June of 1941, Mr. Leir has testified that at a meeting in Washington in some government office you made the statement that you did not foresee any necessity

(Testimony of Edwin D. Bransome.)

of vanadium. Do you recall the meeting and did you make any such statement?

A. I recall the meeting. I was not representing Vanadium Corporation. I was working for the government and I was representing industry in this country and advising Mr. Sidney Hillman and General Newsome. I walked over from my office to that meeting. The statement, or any statement to the effect that I said there was an adequate supply just can't be so, because a year prior to that I had engaged in meetings with the Army and Navy Munitions Board and I am certain that the Carbide people did so, too, because it covered all alloys, and they designated vanadium sales and other alloys on the strategic and the critical materials list, so that to make a statement almost a year afterwards that there was an adequate supply is, on the face of it, ridiculous.

Q. And you made no such statement, is that correct?

A. I made no such statement.

Q. As a matter of fact, after vanadium ore was put on the critical list, were you instrumental in stopping shipments of vanadium to certain potential enemy countries?

A. Definitely. I caused an embargo to be placed on—I don't know whether you can say an embargo, but I caused licenses to be placed on shipments of all vanadium going out of this country, because I was quite sure that it was going into the hands of potential enemies of this country. [2074]

(Testimony of Edwin D. Bransome.)

Before that time, I had sent letters to the State Department telling them, and I did keep him advised of all inquiries that were considered that were large enough, if they were fulfilled, if they grew into orders—if they were large enough so that they grew into orders—to become dangerous to this country, and to come back to us in the form of shells or anything else.

Mr. Holland: In that connection I offer in evidence these two documents.

(Documents handed to Mr. Alioto.)

Mr. Holland: No objection?

Mr. Alioto: Let me see the other one first, please. We have no objection.

Mr. Holland: We offer them as defendants' Exhibits next in order.

(The documents referred to were thereupon received in evidence and marked Defendant V's Exhibit 2-P.)

Mr. Holland: The first of these documents is a memorandum in the State Department, subject "Vanadium Directive No. 86," signed by J. S. Bates, Major O.D. Res., whatever that means.

"Memorandum for Files:

"Mr. Edwin D. Bransome, President of the Vanadium Corporation of America (who is also a member of the Advisory Commission to the Council of National Defense) called on me today to discuss the control of export of vanadium as defined in the President's Proclamation of July 2, 1940, and the regulations thereunder."

(Testimony of Edwin D. Bransome.)

Q. Now, the Proclamation of July 2, 1940, was the proclamation that put vanadium on the critical list, is that correct, Mr. Bransome?

A. I think that was it. I can't recall the exact date.

Mr. Holland: "Mr. Bransome showed me several inquiries for substantial amounts of vanadium in the form of ferro-vanadium for shipment to Roumania and Russia. He was very emphatic in his opinion that these inquiries represented an entirely unsatisfactory disposition of the vanadium involved and in spite of the fact that his company stood to lose attractively priced business, he made strong recommendations that steps be taken to deny licenses for export of vanadium as represented by the inquiries referred to above.

"Directive No. 86 is the result of discussion of this matter in this office."

The Court: What is the date of that?

Mr. Holland: That is August 28th, 1940. And on August 27th, 1940, Directive No. 86 was issued by the [2076] State Department.

"Memorandum for Chief, Division of Controls, Department of State:

"Subject: Export of Vanadium to Germany, Japan and U.S.S.R.

"1. After consideration of information available in this office, it is decided to deny until further notice the issue of licenses for the export of:

"Vanadium — vanadium ores and concentrates; alloys containing in excess of 10 percent vanadium,

(Testimony of Edwin D. Bransome.)

and vanadium compounds, to Germany, Japan and the U.S.S.R.

"2. This action will be understood as applying to any territories actually occupied by the military forces of the powers named.

"3. Should any cases arise involving other territories considered by the Department of State as under the military domination of the powers named, specific instructions will be requested.

"By direction of the President: R. L. Maxwell, Lieutenant-Colonel (O.D.), Chief, Division S.C. Administrator."

Q. Now, Mr. Bransome, Mr. Burwell has given two versions of an alleged conversation he had with you in December of 1947 or January of 1948 regarding the coming production of [2077] uranium in this country, and the question of the handling of vanadium in connection with such production.

I would like to read you the two versions, the first of which is his statement from the stand, and the second of which is a letter he produced which he stated he had written to a man named Keiser of the Atomic Energy Commission.

Mr. Alioto: If your Honor please, we object to counsel's statement of two versions here.

The Court: Well, it is preliminary.

Mr. Alioto: It is argumentative, too. It is purely argumentative.

The Court: It is not argumentative.

Mr. Holland: I explained why I am doing both.

(Testimony of Edwin D. Bransome.)

The Court: Let us get along with this case. Let us cut out this maneuvering and get on with our business.

Mr. Alioto: Our objection was for the record.

The Court: You are the one who is making the argument now.

Mr. Alioto: My objection is that counsel's statement of two versions is argumentative, and I would respectfully move the Court under authority I think I have to strike the question.

The Court: The Court holds it is not argumentative.

Mr. Alioto: To strike the reference and ask the Jury to disregard it.

The Court: Overruled—overruled.

Go ahead with the question.

Q. (By Mr. Holland): First of all, Mr. Burwell was asked about whether he had a meeting with you in December of 1947 or January of 1948 and he said yes.

"Q. Where do you recall that meeting was held?

"A. At the office of the Vanadium Corporation in New York.

"Q. Who was present at that meeting?

"A. Mr. Bransome.

"Q. And yourself?

"A. That is right.

"Q. Nobody else?

"A. That's right."

Now, Mr. Bransome, did you on or about this time

(Testimony of Edwin D. Bransome.)

have any meeting in your office in the Vanadium Corporation?

A. What was that date?

Q. December 1947 or January 1948.

A. No, sir. What is more, I don't remember Mr. Burwell ever being in my office.

Q. Then asked for the substance of the conversation, Mr. Burwell testified as follows:

"I told Mr. Bransome that we had been—I had been concerned with the problem of uranium production for the atomic period we were entering, that we had prepared—that I had prepared a proposal for the building of a central plant on the Colorado Plateau near Naturita which would have a capacity of from 500 to a thousand tons per day, and I had directed and designed with the Manhattan District's pilot plant operations conducted in 1943 a process study, assisted by Union Carbide, which was a plant design."

Do you recall any such conversation with Mr. Burwell?

A. I never heard of the mill, never heard of any such process.

The Court: Did you have the conversation?

A. No, sir.

Q. (By Mr. Holland): "This plant was designed to recover the uranium first using a soda ash leaching process, the same process practically that Naturita is using today, and that the vanadium that was in the ore would be held as a residue to be marketed with or in proportion with vanadium

(Testimony of Edwin D. Bransome.)

markets, and that the respect this proposal had been made was that we would not hold back the production of uranium by forcing it to come through plants that processed for vanadium first and then for uranium, which was limiting uranium production, that this plant had [2080] been designed and prepared for the objective of meeting the future needs of the Colorado Plateau.

"This plan I discussed with Ted Bransome. I told him that I had previously talked with Mr. Marcus Hurst who was President then and is President now of the Molybdenum Corporation of America, that I had recommended to the Atomic Energy Commission, that I had recommended to the Union Carbide Company that the Molybdenum Corporation of America be given the operation of this plant independent of the Vanadium Corporation of America, of the U. S. Vanadium Corporation, in order that these warring differences and disputes over the vanadium market could be eliminated in the future, and that this plant had cost the government, the United States Government, approximately $400,000 for pilot planting in Grand Junction, Colorado, that it was fully developed, that it was the plan for the future, that General Groves and the Manhattan District had approved this plan as one means of continuing without the ups and downs in harnessing of this region in the two-way vanadium market, and the finagling that was going on with those questions that you have heard in this court."

(Testimony of Edwin D. Bransome.)

Do you recall any such statement from Mr. Burwell? A. No, sir. [2081]

Q. Either in your office or anywhere else?

A. No, sir.

Q. "Mr. Bransome questioned me about this plan in some detail. I told them that Mr. Hurst did not feel at the moment that he wanted to get into the picture unless everybody would agree that an independent alloy producer or operator was mutually desirable. I do not think Mr. Hurst was very warm to the proposal, anyway.

"Mr. Bransome said, 'I suppose these independent producers of ore had vanadium and uranium ore and brought their ore up to this central plant that you propose. The vanadium then would be turned back to them to sell or to dispose of, isn't that correct?'

"I said, 'Yes, that is correct'."

Did any such conversation take place?

A. No, sir.

Q. Either in your office or elsewhere?

A. No, sir.

Q. "'We cannot in this particular emergency deny any person the right to get his vanadium back,' that this situation had now become bigger than either the Union Carbide or the Vanadium Corporation of America in my estimation.

"Then he asked this"—that is you—"'What would happen if somebody like Continental Ore or Mr. Leir shipped some ore to this central plant? Would he get the vanadium back?'

(Testimony of Edwin D. Bransome.)

"I said, 'Surely, he would'."

Did you make any such statement, Mr. Bransome? A. No, sir.

The Court: What is your answer?

A. No, sir.

Mr. Holland: "So would anybody else who owned the ore. They would all have to have the same right.

"Mr. Bransome said, he paced back and forth in his office, he said, "That would put Mr. Leir in the vanadium business and that is what we are trying to keep him out of'."

Q. Did you ever make any such statement?

A. I never made any such statement.

Q. "And I looked at Ted and I turned around and walked out of the door."

A. No, sir.

Q. Now, in the letter which Mr. Burwell testified he wrote to Mr. Keiser, which letter is dated January 22, 1948, Mr. Burwell makes the following statement——

Mr. Alioto: Will you identify Mr. Keiser, please, Mr. Holland? [2083]

Mr. Holland: Mr. Keiser is with the Atomic Energy Commission. I have already identified him as being with them.

"In the main there does not seem to be much question as to the engineering approach to the problem of processing the carnotite ores, but most of the questions revolve about the disposal of excess vanadium. In this connection I had an inter-

(Testimony of Edwin D. Bransome.)

esting talk with Ted Bransome, as a result of a casual meeting which developed a brief discussion of the Western situation."

Q. Now, did you, from time to time, have casual meetings with Mr. Burwell in New York?

A. I don't think I had them so much in New York. I may have seen him a couple of times. Well, I met him in Washington at meetings of the Vanadium Division. I met him in Manhattan Project on meetings. I don't think he was in many Atomic Energy meetings, but I did meet him in Washington and in New York and in the West, sometimes in meetings, sometimes casually.

Q. Did you ever have a brief discussion of the Western situation with him at those meetings that you recall?

A. No, sir, I don't recall many such meetings because the year prior to that almost I had told the Atomic Energy Commission that if they wanted to get uranium, they would have to build X number of mills—I can't give you the definite [2084] figures because they are classified—X number of mills to produce ore carrying certain grades of the uranium, but unfortunately they also contained vanadium. In order to make it economically possible for the miners to sell that ore and live, they would have to get $7.00 a ton or something on that order—I may be a little wrong on the uranium content, but for the uranium content, in the order of seven or eight dollars. They would have to be paid for the vanadium at 30 cents a pound, or whatever

(Testimony of Edwin D. Bransome.)

the order was at the time, 20 to 30 cents—call it 30—they would have to be paid $12 or 40 pounds times 30 cents, $12, which would give them 18 or 19 dollars a ton. That would have to be given the miners in order for them to live, in order for them to make it attractive, for them to mine or and deliver it to mills.

Now, as far as the mills were concerned, the mills on carnotite and roscoelite ores, which were in the main in that district, had to carry or did carry vanadium far in excess of the uranium. It was in the order of two percent vanadium and one-tenth of one percent of uranium. Now, it cost the miller just as much to get that out, and so the miller would have to be paid in effect for the vanadium and the uranium, too, because it was put in solution just the same as you put sugar in tea and stir that up and put it in solution. Unless you put sugar and bicarbonate of soda [2085] in it at the same time, when it wouldn't be very attractive as tea, but you would put those in, they go in solution, they come so far through the process, and they were leached in roasters as big as this room and several stories high. They went through that and then they were quenched in a great whirling pool of water. They were dropped out in there and that went into solution.

Now, they leached the rest of it in tanks of sand that were a quarter as big as this room, and that leaching process went through—that was a water leach, and that took out the rest of it, but it put

(Testimony of Edwin D. Bransome.)

it into solution, and that went on through to a point, and when it got to the last point there it divided, you knocked it down, you used some reagent, the same as you could in tea if you found out what could precipitate sugar, what would bring the sugar down.

That went one way, the sugar came down, and the solution went another way, and the vanadium was precipitated from that. One came out in what was called the yellow cake, the other came out in what was called black cake. The miller would have to be paid for both of those before he ran a mill. They had the same experience with their own mills that they ran. When they did that, and I told the Atomic Energy Commission that they would have to pay for all of that, and then they could do with the vanadium as they pleased—excuse me—I almost talked about the number of mills and I don't want to. [2086]

But the number of mills constructed would glut the market, as far as any market was concerned, and they let the vanadium fall where it may. I believe I used that expression, that no matter what happened to the vanadium, let her go. I never said to keep anybody out of business.

Does that answer your question?

Q. That answers my question.

The Court: Did you ever, at any time, make a statement to Mr. Burwell that you wanted to keep the Continental Ore out of the vanadium business?

A. No, sir.

(Testimony of Edwin D. Bransome.)

Q. Did you ever learn of any such statement by any officer of your corporation?

A. No, sir, I never heard any officer of my corporation make such a statement.

Q. (By Mr. Holland): Mr. Bransome, there has been some testimony here about the fact that the Vanadium Corporation in the fall of 1941 attempted to purchase the claims on which Blanding Mines was operating——

A. Will you start that again, please?

Q. I say, there has been some testimony in the case to the effect that in the fall of 1941 the Vanadium Corporation wished to acquire some claims on which Blanding Mines was operating in the Cottonwood area and approached Blanding to buy those claims and was told by Blanding that they did not own them, and that Vanadium Corporation would have to take the matter up with Mr. Garbutt, is that correct? A. Yes, sir.

Q. Did Vanadium Corporation later take that matter up with Mr. Garbutt to purchase those claims from him?

A. Yes, sir, I did.

Q. Why did you purchase those claims?

A. For the sole purpose of supplying ore to the Monticello mill, which was built solely and only for the purpose of supplying vanadium pentoxide for use for the war effort.

Q. Were those claims within an area which was tributary to the Monticello plant?

A. Oh, definitely. Blanding was just down the

(Testimony of Edwin D. Bransome.)

line from us. I don't know what it was. Maybe it was 25 or 26 miles, on, as Kett said, a practically downhill haul. That was good. As a matter of fact, the government I think asked Mr. Garbutt and certainly told us about these claims, too.

Q. Mr. Bransome, have you at any time on behalf of Vanadium Corporation or in your own behalf or in any way made any agreement with anyone connected with Union Carbide organization regarding the division of the vanadium market?

A. No, sir. [2088]

Q. Have you at any time ever made an agreement with anyone at Union Carbide respecting the price at which oxide or ferro-vanadium would be sold? A. No, sir.

Q. Or the price at which ore would be purchased from miners? A. No, sir.

Q. Have you ever made any agreement with anyone at Union Carbide, or anyone else, under which it was contemplated that anybody would be eliminated from the vanadium business or kept out of the vanadium business?

A. Definitely not.

Mr. Holland: That is all.

Cross-Examination

Q. (By Mr. Alioto): Mr. Bransome, when did you join the Vanadium Corporation of America?

A. Mr. Alioto, I've got rheumatoid arthritis. Do you mind if I stand up for just a moment and stretch?

(Testimony of Edwin D. Bransome.)

Q. I have no objection at all.

A. Excuse me. This weather—I love San Francisco, but this weather has got me down.

The Court: Where do you live?

The Witness: In New Jersey—which is just about the same. [2089]

Q. (By Mr. Alioto): Mr. Bransome, when did you join the Vanadium Corporation of America, sir?

A. I believe it was in 1949, in the fall. Wait—I beg your pardon—that was Mack Truck. It was in 1935, I believe.

Q. And your first job with that company was to be its president?

A. That's right.

Q. And prior to that time you had been with a company known as the Air Reduction Company, had you not? A. That's right.

Q. And the Air Reduction Company was a substantial bond holder of Vanadium Corporation of America, was it not?

A. Yes, it was. It bought—that was not beforehand. I sold a company to the Air Reduction Company and that was long before 1938, however.

Mr. Holland: If the Court please, it seems we are getting back again.

Mr. Alioto: We are not getting back. I am simply establishing the fact that he came from the Air Reduction Company; that is all.

Q. The Air Reduction Company was in existence from 1938 to 1949, wasn't it?

(Testimony of Edwin D. Bransome.)

A. Yes, sir.

Q. And during that period of time——

A. I wasn't with them.

Q. And during that period of time was a very substantial producer of the same things that Union Carbide Carbon Division produced, was it not?

A. Yes, I think so.

Q. The two of them were the largest in their fields, were they not? A. Yes, sir.

Q. Union Carbide and Air Reduction.

A. Yes, sir.

Q. Did you retain any connection with the Air Reduction Company after you joined the Vanadium Corporation of America?

A. No, sir.

Q. What had——

A. I was connected with Air Reduction Company in electric welding, nothing else. I had sold a company to them and they insisted I come along with them, and that was the electric welding, and that was the only connection I had with them.

Q. I take it since you started as president directly, the Air Reduction Company, of course, agreed that you might go to the Vanadium Corporation of America as its president.

Mr. Holland: If the Court please, this is all pre-'38 and——

Mr. Alioto: This company was in existence—Air Reduction was in existence from '38 to '49.

Mr. Holland: What difference does it make?

Mr. Alioto: In view of the——

(Testimony of Edwin D. Bransome.)

The Court: No, you can't go back of '38. Now—

Mr. Alioto: If your Honor please——

The Court: You can ask him any condition that existed in 1938. That's when your client came to this country.

Mr. Alioto: I am simply asking whether the Air Reduction Company, which was in existence in 1938, was responsible for his going over to the Vanadium Corporation of America.

Mr. Holland: In 1935.

Mr. Alioto: Yes, in 1935.

The Court: No, you can't answer it.

Mr. Alioto: All right, your Honor.

Mr. Holland: We'll gladly go into it.

Mr. Alioto: You will gladly go into it, but you object.

Q. Now, Mr. Bransome, have you ever made any joint marketing arrangements with Union Carbide Group on vanadium? A. No, sir.

Q. How about shipments to France in 1939?

A. I don't think we ever made that arrangement. I think Electro Chimie ordered vanadium from Union Carbide and ourselves and it was a question of how much could be spared. There was no joint meeting. It was a shipment to France.

Q. You mean they ordered it separately from you and then ordered it separately from Union Carbide? Is that the way it worked out?

A. I don't remember. We were their agents——

Q. Surely.

A. ——in this country, of Electro Chimie, and

(Testimony of Edwin D. Bransome.)

they may have gone through us, as they would through—in any business.

Q. Don't you recall specifically that they did go through you and that you and Mr. Sneath——

A. Why, I can't remember——

Q. That you and Mr. Sneath of Electromet made a deal to split the French order in '39 and '40?

A. No, I never made any such deal to split any order. I followed out the instructions of Electro Chimie, our agent—now, you can put anything you want on it, but that is what actually occurred.

Q. Now, Mr. Bransome, may I show you first a telegram dated October 4, 1939, from Jaoul of Electro Chimie?

A. The name is Jaoul (Sjah-oohl).

Q. Forgive my pronunciation — Jaoul — dated October 4, 1939. Will you be good enough to read that, please, Mr. Bransome, and I will ask you, after you have read it, to state for the record whether that is a document which you received at that time. [2093]

A. (Examining.) Why, certainly. It's merely instructions for us to take care of something for them in this country.

Mr. Alioto: We will offer this in evidence, if your Honor please.

Mr. Holland: We have no objection.

Mr. Archer: I take it you are offering that only against Vanadium Corporation.

(Testimony of Edwin D. Bransome.)

Mr. Alioto: Yes, as of this time, on the assumption——

Mr. Holland: Let me see it just a second——

Mr. Alioto: ——

The Witness: May I read that again, sir?

Mr. Alioto: Yes, sir. I was going to read it out loud to the jury.

The Witness: That's fine. Thanks.

Mr. Alioto: We will read these documents and you will have an opportunity——

The Witness: Just so there is no misunderstanding.

Mr. Alioto: You will have an opportunity to say anything about it any time you want, sir.

(Telegram 10/4/39, Jaoul Electro Chimie to Bransome, received as Plaintiffs' Exhibit 161.)

Mr. Alioto: This exhibit, which is a telegram, October 4 of 1939, L. C. Bransome of Vancoram——

I take it Vancoram is a cable address for the Vanadium Corporation of America?

A. Correct.

Mr. Alioto: "New York, care of Vanadium Corporation of America."

"Further your cable twenty-seventh. Stop. Being London last week have received proposal from representatives Union Carbide for one hundred twenty thousand pounds vanadium pentoxide. Stop. Would you arrange in accord with Sneath to secure firm that quantity shipment October November. Stop. Are now arranging credit. Stop. Kindly cable confirmation.

"Jaoul Electrochimie."

(Testimony of Edwin D. Bransome.)

Q. Now, Mr. Bransome, the "Sneath" referred to here is the Mr. Sneath of the Union Carbide group or Electro Metallurgical Company?

A. That's right.

Q. And Mr. Sneath was kind of their representative on European business, was he not?

A. I don't know what Mr. Sneath was.

Q. Did you, pursuant to this telegram, then contact Mr. Sneath and work out an arrangement?

A. Yes.

Q. And that——

A. That telegram states in there that—it doesn't state that we are their agents, but we are—we were their agents in this country. They said: "Will you please go out and get 120,000 pounds from Union Carbide?" It could have been just as well Jimmie Jones—"and take care of all the shipping and so on and we will arrange credit for it."

Q. You mean that you had the power at that time to—— A. We, as agents.

Q. Yes, I understand you were agents. That is the part of the thing we are after here. And you had the power at that time to get the vanadium pentoxide from anybody else; you didn't have to get it, I take it, from Electro Metallurgical Company?

A. No. It says in there that they had received an offer of 120,000 pounds from Union Carbide.

Q. Yes.

A. I had nothing to do with what they wanted. They had an offer, a bid, a tender of 120,000 pounds

(Testimony of Edwin D. Bransome.)

from Union Carbide. They said, "It's O.K. with us; we will arrange credit for it. Will you please go ahead and take care of the detail"—because they had no office here in New York or in this country.

Q. Oh——

The Court: Were you acting as their agent at that time?

The Witness: Yes, sir.

Q. (By Mr. Alioto): And this was one of the large French ferro-vanadium companies, was it not?

A. Well, it was a ferro—they sold ferro-vanadium, and they made ferro-vanadium.

Q. Was it the largest company in France?

A. Oh, not by any chance.

Q. What were the other companies producing?

A. I don't know, but the Electro-Chimie was not a very large company.

Q. I show you——

A. It's the same as Vanadium—neither is Vanadium a very large company, nor was it then.

Q. I show you next, Mr. Bransome, a letter from the Electro Metallurgical Sales Corporation to your company, addressed to Mr. P. J. Gibbons, Secretary and Treasurer. I take it Mr. Gibbons was the Secretary and Treasurer in November of 1939?

A. Mr. Gibbons was that as long as time lasted, according to my memory.

Q. Yes.

(Testimony of Edwin D. Bransome.)

A. (Witness examining document.) Yes. I don't remember that at all, but I will accept it.

Q. But your company received that letter, did it not?

A. Well, it was written, and I assume it was received. Let's assume it was received.

Mr. Alioto: We will offer it into evidence as plaintiff's exhibit next in order, in connection with this export transaction in '39.

Mr. Holland: We don't think this has anything to do with this lawsuit, your Honor.

Mr. Alioto: It shows the combination between—

Mr. Holland: A transaction of shipping some stuff to France.

Mr. Alioto: We will get in just a minute the rest of it in here.

The Court: Go ahead and let it be admitted.

(Letter 11/3/39, Electro Metallurgical Sales to V.C.A. received as Plaintiffs' Exhibit 162.)

[See Book of Exhibits.]

Mr. Alioto: There are about three or four letters on that and then we will complete this transaction, if your Honor please.

The telegram was dated in October of '39. This is dated in November 3, 1939. It is from the Electro Metallurgical Sales Corporation of Union Carbide to the Vanadium Corporation of America:

"Gentlemen:

"As per our telephone conversation of today, we now have available the second consignment of Fused Vanadium Oxide for France.

(Testimony of Edwin D. Bransome.)

"The gross weight of the consignment is 53,830 pounds, or 51,585 pounds of Fused Vanadium Oxide net, [2098] which is equivalent to 44,999.54 pounds of Vanadium Pentoxide. This, at a value of $1.30 per pound of contained V_2O_5 equals $58,499.40. Adding to this the marine freight, consular fees, consular blanks, and marine insurance charges, we arrive at a c.i.f. Le Havre value of $59,463.20.

"As we understand the freight rate is to be increased on November 13th we suggest that you urge them to cable their credits promptly, enabling booking of the shipment prior to that date; otherwise, their credits must be increased.

"Very truly yours,

"Electro Metallurgical Sales Corporation,

"J. F. Widman, Export Department."

Q. Now, do you recall that you made this shipment to the French at $1.30 per pound?

A. I don't remember $1.30 now.

Q. Wasn't this about 40c under the export market at the time?

The Court: How does that have anything to do with this lawsuit?

Mr. Alioto: I think it has a lot to do with this lawsuit, if your Honor please. We will demonstrate in just a moment. Let us develop the story. I think it will appeal to your Honor after we get it developed. [2099]

A. I don't remember whether this is 30c below the export price.

(Testimony of Edwin D. Bransome.)

Q. Didn't you sell to the French regularly at a certain amount of money below the export price?

A. I don't—no. We sold the French ore, we sold them oxide, and we sold them various amounts. I can't recall the prices at which we sold them.

Q. I show you next a cablegram from you to Trochim in Paris. Maybe my pronunciation is bad on that, too. It is dated November 8, 1939. Would you be good enough to identify the addressee of that? Who is Trochim?

A. Trochim? I don't know; it is probably a cable address. (Witness examining.) I guess it is a telegram sent by Vancoram.

Q. Vancoram is the Vanadium Corporation of America? A. Yes.

Mr. Alioto: We will offer this in evidence as plaintiff's exhibit next in order in this series.

Mr. Archer: Again, that is being offered only against the Vanadium Corporation at this time?

Mr. Alioto: Yes.

Mr. Holland: I don't understand it, but if you want the letter in——

(Cablegram 11/8/39, Vancoram to Trochim, received in evidence as Plaintiff's Exhibit 163.)

Mr. Alioto: This cablegram on November 8, 1939, reads as follows: It is from the Vanadium Corporation of America to Trochim in Paris.

"Two additional lots pentoxide prepared for shipment. Stop. First lot gross fifty-two seven eighty-eight net forty-nine six eighty contained pentoxide forty-five thousand value fifty-nine thou-

(Testimony of Edwin D. Bransome.)

sand four hundred eight-seven dollars credit account Vancoram, second lot gross fifty-three eight hundred thirty net fifty-one five hundred eighty-five contained forty-five thousand value fifty-nine thousand four hundred sixty-four dollars credit account Electro Metallurgical Sales Corporation. Stop. Includes all charges except war risk insurance. Stop. Recommend credits be arranged earliest possible date, understand freight rate increase November thirteenth. Send paid."

Q. Now, do you recall that there was an additional order in November of 1939 which was split, as the cable indicates, between you and Electro Metallurgical?

A. I don't recall that at all, but I am willing to say that we took care of it on the same basis as we took the other.

Q. You were the man that negotiated this with Mr. Sneath, weren't you, Mr. Bransome?

A. I don't believe it was necessary for me to negotiate [2101] that at all. Anybody in our outfit could have done that.

Q. Regardless of who in your outfit did it, whether it was you——

A. It wasn't with Mr. Sneath. When that first telegram, whenever it was, mentions Sneath's name, it was just a matter—this is just a formal matter of business. When they came over to us—when they sent this offer to us, they said: "Please arrange to get it." We got it for them, and that was it. Now, anybody could have done it.

(Testimony of Edwin D. Bransome.)

Q. Now, the price that you arranged with Electro Metallurgical Company was the same price that you were charging the French, wasn't it?

A. I don't know.

Q. $1.30 a pound.

A. I don't recall. It probably was.

Q. So that in your discussions with Electro Metallurgical Company you had to discuss a price at which you would ship to the French in export; isn't that a fact? A. I beg your pardon?

Q. Necessarily you had to discuss with the Electro Metallurgical Company the price at which this export shipment would be made.

A. We had to ask them what their price was.

Q. And you had to negotiate it with them.

A. We did not have to negotiate it. They made their own [2102] prices. We never made any prices for Union Carbide or Electro Met or anybody else. We never made their prices for them. Sometimes we might have followed them; sometimes they might have followed us, which is done every day in business.

Q. Now let me show you a letter from a man in your organization who signs simply as "G.", Secretary-Treasurer, to Mr. Andre Jaoul—let me have that pronounced again.

A. Jaoul.

Q. To Mr. Andre Jaoul, dated November 9, 1939, addressed to Societe d'Electro Chimie in Paris.

(Testimony of Edwin D. Bransome.)

I take it that "G" on that letter is Mr. Gibbons, is that correct?

A. (Witness examining.) "Secretary and Treasurer"—it certainly must have been. It looks like his initial.

Q. That confirms certain cables and then adds one paragraph.

A. You want me to read it?

Q. Is that Mr. Gibbons' initial there?

A. I don't know; you will have to ask Mr. Gibbons that, if that is his initial. I don't know.

Mr. Alioto: Mr. Holland, can we stipulate that the Secretary-Treasurer of Vanadium Corporation November 9, 1939, was Mr. Gibbons?

Mr. Holland: Let me look at it first (examining). I assume. Let me show that to Mr. Gibbons.

(Exchange between Mr. Holland and Mr. Gibons.)

Mr. Holland: Is that your initial?

Mr. Gibbons: Yes.

Mr. Holland: Yes, Mr. Alioto.

Mr. Alioto: Thank you, Mr. Holland.

It sets forth certain of these cables.

Mr. Holland: Have you offered it in evidence yet?

Mr. Alioto: We will offer it.

Mr. Holland: We have no objection.

Mr. Archer: As against Vanadium Corporation only, I take it?

Mr. Alioto: At this point, yes.

(Testimony of Edwin D. Bransome.)

(Letter, V.C.A. to Societe d'Electro Chimie, 11/9/39, received in evidence as Plaintiff's Exhibit 164.)

Mr. Alioto: November 9, 1939, Mr. Gibbons writes to the French company, Societe d'Electro Chimie:

"Gentlemen:

"In connection with your cable of October 10, 1939, confirming your needs of pentoxide contained in the amount of 150,000 lbs. contained, we cabled you as follows:"

Then follows cables, one of which was read.

"As you will note from the above cables, we now have prepared and ready for shipment in our warehouse 75,000 lbs. of contained pentoxide and Electro Metallurgical Sales Corporation have the same amount prepared and in their warehouse ready for shipment.

"We were rather disappointed that the credit for the first 30,000 lot, which you advised on October 24th should be forthcoming within the week, did not come to hand and thus enable us to get this first lot off during the month of October. As we advised in the cable of November 8th, our information is that freight rates will be increased on or about November 13th. If this should take place, it will be necessary to have additional credit arranged to take care of the increased freight rate. We trust, however, that in accordance with our recommendation in our cable of November 8th, that permits and credits will be forthcoming in time for us to take

(Testimony of Edwin D. Bransome.)

advantage of the present rates in obtaining shipping space.

"We would appreciate everything that may be done to rush the required credits in order to release the 150,000 pounds of contained pentoxide which we and the Electro Metallurgical Sales Corporation have ready and jointly holding earmarked for you."

Next is a telegram from you, Mr. Bransome, to Painvin dated December 14, 1939.

Would you be good enough to examine that document and state if that is the cablegram sent you, and then if you would also be good enough to identify the name Painvin for us—if that is the right pronunciation?

A. Your French is getting much better.

Q. Yes, it is.

A. (Witness examining.) I don't remember the telegram, Mr. Alioto, but I am willing to assume that it was sent.

Q. Well, we received in connection with certain pre-trial discovery this, so I assume there is no question, then, about authenticity.

We will offer this cable into evidence as the plaintiff's exhibit next in order.

Mr. Archer: That is just against the Vanadium Corporation?

Mr. Holland: No objection.

(Cable, December 14, 1939, Vancoram-Bransome to Painvin-Trochim; received in evidence and marked Plaintiff's Exhibit 165.)

(Testimony of Edwin D. Bransome.)

Q. (By Mr. Alioto): About this time, Mr. Bransome, weren't you engaged in activities to control these exports to the extent that third parties wouldn't be exporting but just you and Electro Metallurgical would be?

A. I beg your pardon?

Mr. Alioto: Read it.

(Pending question read back to reporter.)

The Witness: Definitely not. [2106]

Q. (By Mr. Alioto): You weren't trying to keep speculators from buying domestic and selling export, were you?

A. How could I?

Mr. Alioto: This cable reads—we will come to that in a moment—this cable reads:

December 14, 1939, Mr. Bransome to Mr. Painvin——

Q. Exactly who was Painvin?

A. Painvin was the President, I believe, or Managing Director, of Electro-Chimie in Paris.

Q. Did he have an office in your New York office? A. No, sir.

Q. At any time? A. No, sir.

Q. (Reading.)

"Your cable 10th arrange credit cover 400,000 pounds pentoxide——"

This is a new order, isn't it?

A. I don't know. You asking me?

Q. Yes.

A. I don't know whether it is or not.

Q. (Reading.)

(Testimony of Edwin D. Bransome.)

"Your cable 10th arrange credit cover 400,000 pounds pentoxide contained amount about 620,000 dollars. Stop. About 310,000 account each Electro Metallurgical Sales Corporation and Vancoram. Stop. 45,000 pounds pentoxide contained due to leave New York December 26th Steamship Adamus completing Vancoram portion first order."

Now, do you have any recollection of arranging in connection with this 400,000 pounds order to have Electro Metallurgical Company take half of it?

A. No, sir. But I assume it was done as an agent. Remember this, Mr. Alioto, that Electro-Chimie was also connected with Union Carbide.

Q. How?

A. In other directions.

Q. How?

A. Why, I don't know. They sold them patents or something like that and Union Carbide would get in touch with them and say, "We offer you so much vanadium." We were their agents; we took care of that business. And we never arranged for any prices that they would pay or anything.

The Court: Well, now, at this time, at this particular time, who were the producers of vanadium in America?

The Witness: In America, the Vanadium Corporation and the Union Carbide.

The Court: Were there any other sources from which you could supply that order then?

(Testimony of Edwin D. Bransome.)

The Witness: Oh, yes, we could have supplied that order from Peru. See, we had large—— [2108]

The Court: I am talking about in the United States.

The Witness: No, sir. But we could have supplied that order from Peru.

The Court: Yes. Well, now, were there any other producers of vanadium in the United States at that time except the two you mentioned?

The Witness: Not to my knowledge, no. No one that could have fulfilled any orders like that.

Q. (By Mr. Alioto): Weren't there a number of independent mills out in the Colorado Plateau at this time, Mr. Bransome?

A. No, sir. Not any of them that could have done anything like that.

Q. You mean none that could have produced 400,000 pounds?

A. No. And there wasn't any at that date. What date is that?

Q. December of 1939.

A. 1939—I don't think there was a mill on the Plateau running, with the exception of Uravan, and there may have been some little mill running some place, but I doubt that. I think Nisley and Wilson or somebody had a mill over near Gateway, because we helped them out with equipment and ore—and bought ore from them, and bought the little oxide they produced from them, but I don't know of any other mills that were running. [2109]

(Testimony of Edwin D. Bransome.)

Q. The record independently shows he was operating at that time, Mr. Bransome.

A. Well, it would. I would be interested in hearing what they were, because I don't recall it.

Q. Mr. Bransome, you were getting $1.30 for this oxide that you were shipping to France, weren't you? A. That is right.

Q. And you were buying that oxide from the Vanadium Corporation or part of it at 80c. They sold it to you right in this period, 1939. Weren't you? A. Yes, I think they were.

Q. At this time the Apex Smelting Company had asked you for supplies of vanadium oxide, had they not, and you turned them down?

The Court: We will take a recess.

(Recess.)

Q. (By Mr. Alioto): Mr. Bransome, my associates called my attention to the fact that when I asked you just before the recess whether you were selling at $1.30 and buying at 80c that I inadvertently said buying at 80c from the Vanadium Corporation of America. Of course, I meant buying it from the United States Vanadium Company, not the Vanadium Corporation of America. You were aware of the fact, were you not, in 1938 and 1939 you were buying supplies of oxide from the United States Vanadium Company? [2110]

A. I was not aware of that at all, Mr. Alioto.

Q. Didn't you know that in 1938 you bought 130,000 pounds of vanadium oxide from U.S.V. at 80c?

(Testimony of Edwin D. Bransome.)

A. I don't know whether that came from the Maggie C. or who.

Q. The Maggie C. is 1939 and 1940.

A. We bought V_2O_5 from U.S.V. when they had stored large supplies of it, and it was good business for them to get rid of it.

Q. But in any event, a while ago when I said the Vanadium Corporation of America, I meant you bought at 80c from U.S.V.

A. We didn't in 1939.

Q. 1938?

A. Now, which are you asking me about, Mr. Alioto, 1938 or 1939?

Q. The record shows I am asking now if you remember the quantity of 130,000 pounds in 1938.

A. I don't remember that quantity. I remember buying in large quantities from the U.S.V. when they had quite a few million pounds of V_2O_5, and we had the sales organization that could sell it and they did not. So they thought it was good business to get rid of that inventory instead of having their money tied up in it. We bought it at that time. When the sales of vanadium started up, when demand for vanadium started [2111] up, they refused to sell us any more.

Q. You bought about 3,000,000 pounds from them under that arrangement?

A. I wouldn't be a bit surprised, because that was in effect when I came with the company.

Q. Mr. Bransome, at the time you were selling

(Testimony of Edwin D. Bransome.)

for $1.30 to the French, the actual export price was $1.70 for oxide, wasn't it, f.o.b. New York?

A. By whom?

Q. The general market price for oxide in export.

A. I don't know. I don't think we ever sold at $1.70. What do you mean by "the general market price"? Are you talking about the Vanadium Corporation of America? I don't believe we ever sold oxide for $1.70 in 1939.

Q. Isn't it a fact that at the end of 1939 and the beginning of 1940, when the export market went to $1.70, the local market was at $1.10, and that made a situation where an independent could purchase the oxide at $1.10 and sell in export at $1.70?

A. If the export demand was $1.70 and any sharpshooters wanted to come in and get oxide at $1.10, they could have made the intervening profit.

Q. And you engaged in activities to prevent that and stop it, didn't you?

A. I never engaged in any such activity at all. That is [2112] an imputation that just isn't so.

Q. I will show you a letter dated March 28, 1940, and ask you to look at the initials on that letter. It is a letter from you to Painvin, and state whether or not those are your initials at the bottom of that letter. Did you write that letter, sir?

A. I guess I did. Those are my initials.

Q. Are the facts therein stated true?

The Court: What is the question?

(Testimony of Edwin D. Bransome.)

Q. (By Mr. Alioto): Are the facts therein stated true?

A. I wrote the letter, and whatever is in the letter I presume to be true according to my belief. I don't know whether they are facts or not.

Mr. Alioto: I offer this,

Mr. Archer: That is against the Vanadium Corporation of America only?

Mr. Alioto: Yes.

Mr. Holland: No objection.

(The document referred to was thereupon received in evidence and marked Plaintiff's Exhibit 166.)

Q. (By Mr. Alioto): Mr. Bransome, isn't it your recollection now that Painvin or the Societe d'Electro-Chimie was not only the biggest ferro-vanadium producer then but is still today in France? [2113]

A. I think—yes, they may have been the biggest producer in France. I thought you said in Europe, on the Continent.

Mr. Alioto: This airmail letter with Mr. Bransome's initials on it, written out in his handwriting to Mr. G. J. Painvin, Societe d'Electro Chimie, 10, rue de General Foy, Paris, France:

"Your letter of February 19 finally arrived today, which is rather a record, I believe, in speedy transmission of the mails and, according to the marks on the envelope, it did not leave Paris until February 28. However, I assume these are neces-

(Testimony of Edwin D. Bransome.)

sary delays which none of us can complain of under the present circumstances.

"I am afraid that you have misunderstood my cables and letters in respect to the situation on V_2O_5.

"At no time has the situation been easy in the supplying of either Ferro or Pentoxide. Up until the present date, we have been required, in order to keep our inventories up to a reasonable figure, to refuse to sell a great many people who have had firm orders in one hand and cash in the other and were willing to pay practically any price that we asked. As a matter of fact, for domestic consumption and what we did sell for export required us at one [2114] time to ship practically hot metal.

"Our position is a little better now, but one that would speedily be uncomfortable should one large order for Ferro or Pentoxide come in from abroad or from this country."

And then down below this following paragraph—

Mr. Holland: Read the whole letter.

Mr. Atioto: All right.

"As you probably know, we are in close touch with the Government on any Critical or Strategical materials and have assured them that we would not sell abroad any quantities of our alloys that might jeopardize the position of our country in the event of an emergency.

"In respect to some materials, the only way that we could supply them would be to have the raw materials shipped from abroad and have us process

(Testimony of Edwin D. Bransome.)

in transit, thus preserving our existing stocks of such raw materials. I can't say that I am entirely in sympathy with this procedure, but, nevertheless, it is there and must be observed.

"The prices for export are still the same, namely, $3.70 per pound for Ferro and $1.70 for Oxide. These prices make for people trying to buy domestic and sell export, but I am happy to say that we seem to have this phase under very good control and if any shipments do get away from us they are very small ones. The good part of this program is that as long as we can control our shipments, speculation by individuals is prevented and, as I said before, we are only selling to our regular domestic customers.

"I am taking up your time and going into detail on this as I want you to clearly understand that it is our desire to take care of you and your requirements of any materials we have in excess of domestic requirements if you will let us know as far in advance as possible and on the same basis as our last shipments provided the export price remains the same. In short, I cannot promise that we will be in a position to ship Ferro or Oxide within a short period of time if the request comes without warning.

"I feel certain that you will understand that I am not trying to build up any business for ourselves by alarming you as to the supply of Vanadium. If we had loosened up in our policy in selling certain brokers here, our supply of Vanadium

(Testimony of Edwin D. Bransome.)

would have been taken up for months to come and I think we are still in that position. [2116]

"So much for business.

"The news we get from your side of the water is so varied that even after a lengthy study and sifting of pseudo facts we are always in the state of bewilderment. It leaves us only with the hope that things go well with you and that we will receive favorable news.

"I hope this finds you well and that same applies to your entire family.

"With my very best regards to you and Jaoul, I am

"Sincerely,

"EDB."

Q. Now, Mr. Bransome, in that portion of this letter where you say that the prices were $3.70 for ferro and $1.70 for oxide, "these prices make for people trying to buy domestic and sell export, but I am happy to say that we seem to have this phase under very good control and if any shipments do get away from us they are very small ones." Now, what did you do to keep shipments from getting away from you?

A. Mr. Alioto, I am proud of that letter. That meant that we had millions and millions of pounds requested by brokers downtown in New York, and Mr. Viles or Mr. Laub can tell you he was on the telephone constantly all the time with people who had never been in the vanadium business, never owned a [2117] claim, never owned a mill, never

(Testimony of Edwin D. Bransome.)

had a thing to do with it, but at that time they saw a chance to make a dollar. Now, those were the people that I went to Washington and had licensed so that anybody who wanted to buy vanadium had to get the Government to approve that they really were sending that to the right people, and it wasn't long after that that that went into effect, and I was talking to them down in Washington at that time just about that sort of thing. If we had sold to the brokers that asked us and that had the cash in one hand, as I say, and an order in the other, we would not have had any vanadium for the use of the country or for France, that had its back to the wall at that time and was licked just a short time later and Paris fell. When they had orders with us, the French came to us and told us would we honor their orders, and we said forget it.

Q. Was the Continental Ore Company one of the companies you were trying to keep out of this export business?

A. The Continental Ore Company — I never heard of the Continental Ore Company to any extent or hardly at all. The sales department handled all those things. I never heard of Mr. Leir who is in this case. I never saw him but once in my life, and I don't think I heard of him but three or four times.

Q. I am asking you whether the Continental Ore Company was one of the companies that you were trying to keep out of the export business at this time. [2118]

(Testimony of Edwin D. Bransome.)

The Court: What is the purpose of this line of questions?

Mr. Alioto: To show that the Continental Ore Company——

The Court: Is it your contention now that these people who had the ore were under any obligations to sell to a broker who could take that and make some money out of it?

Mr. Alioto: Within a month of this time the Apex Smelting Company made a demand for oxide and was turned down, and Apex Smelting Company was producing ferro-vanadium of a very fine quality.

The Court: Apex always had what they needed.

Mr. Alioto: That is not the evidence in the case.

The Court: That is your own testimony.

Mr. Alioto: No, I looked that up again last night.

The Court: Look it up again.

Mr. Alioto: I read it last night.

The Court: The statement of Mr. Leir himself.

Mr. Alioto: They tried to get it in March of 1940, the same month in which this letter was written, and they didn't get it. And I asked the witness, was Continental Ore Company one of the companies you meant to keep out of the export business?

The Court: He answered no.

The Witness: I said no.

Q. (By Mr. Alioto): Then you did not include

(Testimony of Edwin D. Bransome.)

the Continental Ore Company in th. broker situation you described, is that it?

A. I didn't know anything about the Continental Ore Company. I don't know whether they were included or not. I don't know whether they were brokers. I didn't know them.

Q. Your letter states that the export price was $1.70 f.o.b. New York. Well, it says $1.70 for oxide. It doesn't say f.o.b. New York. But I call your attention to that paragraph. The last paragraph says the export price is $1.70 for oxide and $3.70 for ferro——

A. "The prices for export are still the same, namely, $3.70 per pound for Ferro and $1.70 for Oxide. These prices make for people trying to buy domestic and sell export."

Q. Yes.

A. In other words, we were trying to discourage them, and the way we discouraged them finally was to get the Government to make them get licenses before they could buy any vanadium and ship it abroad, and so to be sure it would go to the right people and not to our potential enemies.

Q. Yes. And didn't the Germans get a million pounds of oxide just before the outbreak of war from the Metallurgical Company?

A. What is that?

Q. Didn't the Germans get a million pounds of oxide from [2120] the Metallurgical Company just before the outbreak of war?

A. Are you asking me——

(Testimony of Edwin D. Bransome.)

Q. Yes.

A. Are you imputing that I sold the Germans a million pounds?

Q. Do you know?

A. Wait a minute. You just said that I sold it, didn't you?

Q. The record shows Electro Metallurgical Company. I didn't say you.

A. Then why bring it in when you are talking to me? If you are impugning my patriotism, let us do it definitely.

Q. I am not impugning your patriotism. You just made a statement about where this oxide was going.

Q. (By the Court): Did you sell to Germany?

A. No, sir, but before the time we finally put up the price to where we thought they would stop, they had bought one order, your Honor, before this. I said, "Make it $5 and that will shut them up." They bought it, and from that time on we didn't sell them.

Q. When was that?

A. I can't remember that particular time.

Q. What year?

A. I think that was in 1938, if I am not mistaken.

Q. (By Mr. Alioto): Mr. Bransome, I am not saying [2121] anybody who sold to the Germans or anybody else in 1938 and 1939 was unpatriotic. That is a matter that you introduced here.

(Testimony of Edwin D. Bransome.)

The Court: Just a minute. What date does your question imply?

Mr. Alioto: There was some testimony given by Mr. Burwell that Mr. Sneath of Electro Metallurgical came out to see him in Colorado in 1939, and as a part of the program of getting rid of the oxide, a million pounds was sold to Europe through Sir Edmund Davies, who was head of the cartel in Europe, most of which went to Germany. That is the evidence in the record.

The Witness: I don't know whether a million pounds went to Germany and I doubt it very much for the record.

Q. (By Mr. Alioto): In any event, you say the export price at this time was $1.70 in your letter. Now, your sales to the French were at $1.30?

A. Wait a minute. Will you read the rest of that, Mr. Alioto? I said those prices were made for certain purposes.

The Court: Those prices according to the letter were made by the purchasers, not by the sellers.

Mr. Alioto: I do not care who made the prices. I just want to know why you were selling 40c below, you meaning the Metallurgical Company, to the French group.

The Witness: Do you know any orders that were sold at $1.70 or above? Are they in the record?

Q. (By Mr. Alioto): Mr. Bransome, my question is a rather simple one. You say the export price is $1.70.

A. I said the price was $1.70 on oxide, and that

(Testimony of Edwin D. Bransome.)

letter, if you will read that to the jury again so there is no question—read that letter.

Q. "The prices for export are still the same, namely,. $3.70 per pound for Ferro and $1.70 for Oxide. These prices make for people trying to buy domestic and sell export, but I am happy to say that we seem to have this phase under very good control." A. That is right.

Q. "And if any shipments do get away from us they are very small ones." [2123]

Q. Is there anything else you wanted me to read, Mr. Bransome?

A. No, this is all right. That shows—those we to discourage people.

Q. Now, we have the price of $1.70 for oxide at the market price of 1940, is that a fact?

A. Call it—I don't think it is a fact, but call it $1.70.

Q. Well, what do you mean, Mr. Bransome? You tell us. You read the letter and tell us what you meant by that.

A. It says here:

"The prices for export are still the same, namely, $3.70 for ferro-vanadium, and $1.70 for oxide. These prices make for people——"

"may," it should be——

"——for people trying to buy domestic and sell export."

Q. There isn't any question, then, that the price at some time had been $1.70 for oxide?

A. I can't recall that. That's——

(Testimony of Edwin D. Bransome.)

Q. All right.

A. That's 1939. This is 1958. That's 20 years ago. I can't remember that.

The Court: How is this material at all to the issues in this case?

Mr. Alioto: Because, if your Honor please, at the same time there were American companies asking for this oxide, and they sold it to the French at 40 cents below market price.

The Court: Let's just assume——

Mr. Alioto: It's a good way of keeping it out of the country and keeping it away from the domestic producers,—as good as any.

The Court: If someone wanted to buy at $1.10 and sell it abroad, is it your contention that these people were under any obligations to sell it to them?

Mr. Alioto: My contention is that they cannot jointly refuse to sell to them. Yes, that is my contention. They may not jointly, by agreement, refuse to sell to them.

And Union Carbide, with 75 percent of the production, can't singly refuse to sell to them, in my opinion, under the law.

The Court: Well,——

Mr. Alioto: The point I am trying——

The Court: That is a new law: that is a new law.

Mr. Alioto: Your Honor has read the Moore case. There was a refusal to sell by agreement. Is there any difference between the two cases?

(Testimony of Edwin D. Bransome.)

The Court: I think a producer can sell to whom he pleases.

Mr. Alioto: In agreement with another producer, when they both have 100 percent of the market? [2125]

The Court: If you will just offer some evidence, now, showing an agreement, that is what I would like to get.

Mr. Alioto: Your Honor has gone through the Griffiths case and the Moore case, and there is a lot more in this case than in the Griffiths case, and you know what the Supreme Court did there. There is a lot more evidence——

The Court: They sustained the lower court. That is what they did. I am perfectly aware of that.

Mr. Alioto: The Griffiths case? They overruled the lower court, I thought.

The Court: Well, you read it again.

The proposition here is this: You are alleging a combination, an agreement——

Mr. Alioto: Yes.

The Court: Now, I would like to have some evidence showing that there was an agreement or an understanding to do this.

Mr. Alioto: Well, here are two companies. When they build a mill—when one company, at Uravan, builds its mill, it built it with steel supplied by the other company, and——

The Court: The jury has heard the explanation of that, why it was.

(Testimony of Edwin D. Bransome.)

Mr. Alioto: I think your Honor is becoming an advocate for the defendants rather than a judge at this point, [2126] and I respectfully take exception to it.

The Court: Offer some evidence in support of your allegations, that's all.

Mr. Alioto: I do respectfully take exception to the advocacy on the part of your Honor of the defendants' cause. We think that it is error, but we, of course, will take it up at some other point.

The Court: You may have an exception to anything that the Court says.

Mr. Alioto: Thank you very much, Judge.

I want it to be known that I am being very respectful in what I say to the Court. Sometimes in a cold record it looks as though I am not. I think I am being deferential.

Now then, my question very simply, if I can get at it——

The Court: I just want to repeat that this line of questioning that you are hearing with regard to this export business has nothing to do with this lawsuit, and is merely surplusage.

Q. (By Mr. Alioto): Now, Mr. Bransome, it is a fact,—what I want to find out is this: If the export price was $1.70, why did you and Union Carbide sell to the French at the $1.30 price?

A. I don't know. I think we sold the French because their backs were against the wall, and we sold them at $1.30 because the domestic price was

(Testimony of Edwin D. Bransome.)

$1.20 and $1.10. I suppose we [2127] said $1.30 is enough under the circumstances——

Q. And you negotiated——

A. Wait a minute. I want to look at this letter.

Q. You want to read the letter, again, to the jury? I will be very happy to. A. No.

Q. If there is anything else you want to comment on, you go right ahead and do it, sir.

A. Yes, I would like to read this, if I may.

Q. You go right ahead, sir.

A. (Reading.) "At no time has the situation been easy in the supply of ferro or pentoxide. Up until the present date we have been required to keep our inventories up to a reasonable figure, to refuse to sell a great many people who have had firm orders in one hand and cash in the other and were willing to pay practically any price we asked. As a matter of fact, for domestic consumption and what we did sell for export required us at one time to ship practically hot metal."

Now, doesn't that explain our whole viewpoint? Could you have a better letter than that, than that paragraph?

The Court: Let's defer the argument. The letter speaks for itself.

Mr. Alioto: Now, without the necessity of reading the other documents on this export matter, if your Honor [2128] please, this arrangement of splitting orders goes on up to June of 1940, and I would like to put these letters in evidence and call them to the attention of the jury at a later

(Testimony of Edwin D. Bransome.)

time—these telegrams, rather. We will offer these as a group.

Mr. Archer: Are these all Vanadium Corporation exhibits?

Mr. Alioto: No. One of them is written from Mr. Gibbons to Mr. Swain of Electro Metallurgical Sales Company. Possibly I could segregate them, Mr. Archer.

Mr. Archer: Yes.

Mr. Holland: Would the Court give us the noon hour to look these over, so we can see whether we object to them or not, as long as he isn't going to read them now?

The Court: You can have them marked for identification.

And you may examine them.

Mr. Holland: I did not want to delay the trial any more by taking time to read them.

Mr. Alioto: We will offer as one group an exchange of correspondence and cables from Mr. Bransome with the Electro-Chimie of France.

The Court: This is for identification.

(The exchange of correspondence referred to was marked Plaintiffs' Exhibit No. 167 for identification.) [2129]

Mr. Alioto: We offer next for identification a single letter from Mr. Gibbons to Mr. John Swain, the vice-president of Electro Metallurgical Sales Corporation, with reference to a 30,000 pound order of V_2O_5 for the Societe de Electro-Chimie. We offer that for identification, too, at this time. We would

(Testimony of Edwin D. Bransome.)

like to offer them in evidence after the noon hour, if your Honor please.

The Court: Counsel may have an opportunity to examine them.

(The letter referred to was thereupon marked Plaintiffs' Exhibit No. 168 for identification.)

Q. (By Mr. Alioto): You saw a good deal of Mr. Burwell, didn't you, Mr. Bransome?

A. No, sir, I did not.

Q. Well, now, Mr. Burwell was at one time connected with the Metals Reserve program, I take it, and the Manhattan Project?

A. Yes, that's right.

Q. He did work with the Atomic Energy Commission? A. That's right.

Q. And in connection with those things you saw him, did you not?

A. Well, I saw him at the Manhattan Project. I don't think I saw Burwell more than once. I saw Van Fleet.

Q. Yes.

A. I don't know whether Burwell was at any of the meetings in the Atomic—in the Manhattan District, which, first-hand—they were formed to make the bomb. I don't—I don't want to bet that I didn't see him at any of those meetings, but we'll assume that I saw him once.

Q. On the Colorado Plateau, when you visited there, you saw him on several occasions, didn't you?

A. Well, over a period of three or four years, whatever it was, I think that I may have seen him

(Testimony of Edwin D. Bransome.)

several—several is probably right—three or four times.

Remember, Mr. Alioto, that I was not only president of the Vanadium Corporation; I served on the Advisory Defense Council.

Q. Yes, I know that.

A. Wait a minute—its successor, the Office of Production Management, the War Production Board. I represented the steel industry with Judge Morrow in the so-called big steel case. I served on confidential missions. And I had charge of an ammunition program.

Now, that means that most of that time, most of those years, I was in Washington, and my—Mr. Laub, who follows, or any of these people, will tell you that I got to my office on Monday morning, and when I went out to the Plateau it was very quick stuff—I would fly out and get there, and go over the lousiest roads you ever saw, and then come out of those same roads down again and fly back. And I wasn't out there buddy-buddying with anybody.

Q. (By the Court): The question is, How often did you see Mr. Burwell out there?

A. Several times.

Q. (By Mr. Alioto): Well, now, you don't deny that you discussed ore prices with both Burwell and Van Fleet, do you, Mr. Bransome?

A. Certainly—I don't know what you mean by "deny" that I discussed them.

Q. You talked about ore prices to both Burwell

(Testimony of Edwin D. Bransome.)

and Van Fleet, didn't you—your competitors, so-called?

A. Not to my recollection, no.

Q. You mean at no time did you ever discuss ore prices?

A. Oh, they may have talked about the prices that they had out there, and the prices of ore, and may—on a couple of occasions may have said, "Is the ore coming in?", and "How are the prices?" That's probably so.

Q. And you would tell them what your prices were, would you?

A. No, I don't think so.

Q. When they asked you "How are the prices?", you wouldn't answer them, is that it? [2132]

A. No; we had constant battle, through our people, between them, because we thought they weren't living up to what their listed prices were, and it was a constant war. Burwell has testified here—in the transcripts that I read—that at one time some of the people wanted to shoot them off the claim.

Q. Well, did you think that they had some obligation to live up to listed prices?

A. No.

Q. Then why——

A. They had no more obligation—look, that's common in business. They call them price-cutters.

Now, any man—I have testified that we would pay any price for ore that we saw fit to pay at any time, regardless of anything. Now, that was

(Testimony of Edwin D. Bransome.)

our policy all the time, because we had a government mill that we were trying to fill and get with ore—to get V_2O_5—not for the Vanadium Corporation, but for the defense effort. We were getting the magnificent sum of two cents a pound of V_2O_5 produced for building and running that mill and doing the whole work. Now, that's how much we were interested, as far as the selfish interests that the Vanadium Corporation had—two cents a pound of V_2O_5 on all that work.

Q. For instance—I am not talking about selfish interests, or anything else. I am simply trying to get at certain [2133] facts. Now, let's forget about Monticello for a moment.

You purchased ore before you built any mill at Monticello, didn't you?

A. I didn't purchase it.

Q. Your company.

A. I instructed our people, Mr. Viles, to buy the ore, and at Monticello I said, "I want 25,000 tons of ore in the pile when we have this mill finished in September-October."

Q. I am not talking about——

A. They said, "Yes, we will get it." And that was all. I didn't tell them what the price was to be, or anything else, or——

Q. Did you have a mill at Monticello in 1940, sir?

A. No. I think that was 1941. We were talking about Monticello in 1940, though.

(Testimony of Edwin D. Bransome.)

Q. You actually got Monticello in 1942, didn't you?

A. I don't know whether we got the water rights out there, or—I don't know what the dates were.

Q. All right. In any event, there was a time when you decided to open up your Naturita plant?

A. That's right.

Q. And that came about 1940, did it not?

A. I think that was 1940 that it was opened up. We were out there fussing around in 1939. I believe it may have been '38. [2134]

Q. And in connection with opening up your Naturita plant, you had to determine how much you were going to charge for the ore, isn't that correct? A. Oh, yes.

Mr. Holland: You mean "pay" for it.

Q. (By Mr. Alioto): Pay for the ore.

A. That's right.

Q. All right. Now then, did you not instruct your folks in 1940 that they were not to pay more for the ore than U.S.V. paid?

A. No, sir. The price of ore was arrived at backwards, from the mill in Bridgeville back, and it was somewhere around 20 cents, 20½ cents, whatever it was, and we couldn't get the ore. So we raised that price to 21.

Now, after that we paid all kinds of prices. 21 wasn't bringing in ore. We paid any amount of different prices. We loaned prospectors ore—I mean, individual miners, the small miners, we gave

(Testimony of Edwin D. Bransome.)

them equipment, we hauled their ore for them, we did everything to get ore for the defense effort.

Q. Speaking now of Naturita and the period just before the opening of your plant at Naturita, two or three months before that time, do you recall having a meeting in New York with Mr. Van Fleet and Mr. Burwell? A. No, sir. [2135]

Q. Did you ever have a meeting in New York with those two gentlemen?

A. Not that I recall. I may have met them casually.

Q. On anything relating to business, whether it is the Maggie C. or Dry Valley?

A. Not together. I don't think I ever met Burwell and Van Fleet together in New York at all.

Q. Well, did you ever meet Van Fleet in New York for the purpose of discussing business of any kind?

A. Yes. I met him in respect to the Dry Valley claims.

Q. Now, just before you opened up your plant at Naturita didn't you have a meeting at your club with Mr. Van Fleet? A. What club?

Q. Did you belong to a Union Club of some kind in New York?

A. I belong to many clubs in New York.

Q. Is there one called the Union Club, Mr. Bransome?

A. Yes, sir. But I don't belong to it.

Q. Well, did you ever go to luncheon there, at the Union Club? A. No, sir.

(Testimony of Edwin D. Bransome.)

Q. What is the name of your club in New York?

A. Oh, I have got quite a few in New York. Do you want me to go over the list?

Q. Just some of the more prominent ones.

A. I'm ashamed of some of them.

Q. Some of the more prominent ones, Mr. Bransome.

A. Well, the Uptown Club and the Cloud Club—which is a luncheon club. It is quite possible that I might have met either Burwell or Van Fleet, or both of them.

Q. At where?

A. The Uptown Club.

Q. Yes. Now, do you specifically remember meeting in the Uptown Club just before you opened up at Uravan, at which you discussed labor situations, ore prices, and general conditions on the Plateau? A. No, sir.

Q. You aren't actually in the position, are you, Mr. Bransome, to deny that such a meeting took place?

A. I wouldn't deny it. I just don't remember any such meeting of any kind. It must have been awful casual, though, if it was.

Q. Now then,——

A. Wait a minute, now. We had ore in a pile in the yard in Naturita. I guess—no, that was—they tried to buy it from us and we wouldn't sell it to them.

Q. Now then,——

A. We wanted to stay in business.

(Testimony of Edwin D. Bransome.)

Q. I don't think your counsel finished reading a letter that was written to Mr. Kaiser, and I would like to finish it [2137] and ask you about it.

There is here in evidence a letter written to Mr. H. D. Kaiser.

Now, I take it you knew Mr. Kaiser, didn't you?

A. I never knew him, never met him.

Q. Of the Atomic Energy Commission?

A. Not to the best of my knowledge.

Q. Mr. Kaiser of the Atomic Energy Commission in Washington, D. C. And that letter is dated January 22, 1948. And in that letter——

First of all, do you recall a conversation with Mr. Burwell in 1947 in which he discussed with you certain ideas under what he called the "Process 'C',"—does this "Process 'C'" ring a bell with you, Mr. Bransome? A. No, sir.

Q. Do you recall a discussion with him about a method of producing uranium that would give you a cost of 65 cents on vanadium?

A. No, sir.

Q. Well, the letter reads as follows:

"In this connection I had an interesting talk"——

The Court: Who wrote the letter?

Mr. Alioto: Mr. Burwell wrote the letter to Mr. Kaiser of the Atomic Energy Commission, in which he refers to Mr. Bransome. I want to read that letter and ask Mr. Bransome [2138] if the facts recited with respect to him——

The Court: Has the letter been admitted in evidence?

(Testimony of Edwin D. Bransome.)

Mr. Alioto: Oh, yes. This is Exhibit 58, if your Honor please.

The letter states as follows:

"In this connection I had an interesting talk with Ted Bransome as a result of a casual meeting which developed into a brief discussion of the western situation. I told Ted that I believed that vanadium could be produced at a by-product price of 65 cents per pound of V_2O_5 from a properly engineered plant with the economies of such a plant and at the same time would produce uranium for the government at a much lower price than is being considered now."

Q. (By Mr. Alioto): Now, can you say, Mr. Bransome, that you never had a discussion with Mr. Burwell in New York in 1947 at which the question of producing V_2O_5 at 65 cents was discussed? Can you deny that that happened? Or is it you just don't remember any discussion?

A. I don't remember it, and I don't remember the extent—I will deny that it ever happened, because I just testified just a little while ago that I had gone to the Atomic Energy [2139] Commission and told them to produce it in the various mills.

Q. At this point we are not talking about that; we are talking——

Q. (By the Court): Did you have this conversation with him? A. No.

Q. (By Mr. Alioto): About 65 cents?

A. No, sir, I didn't.

(Testimony of Edwin D. Bransome.)

Q. You never discussed the figure of 65 cents cost for vanadium?

A. In connection with the 500-ton mill as a certain price—I may have discussed 65 cents. 65 cents, that figure is in connection with a toll charge that they would charge us for mining our own ore.

Q. Now then—however, is it your recollection that except for this toll charge arrangement on the Maggie C. and these other claims, that you never discussed a 65-cent cost of production with Mr. Burwell? A. I did not.

Q. All right.

Then Mr. Burwell continues in this letter to Mr. Keiser of the Atomic Energy Commission:

"While the price of 65 cents per pound of V_2O_5 would be a Godsend to V.C.A., in view of [2140] their present 85-cent cost,"——

Now, did you have, in 1946, an 85-cent cost for vanadium oxide?

A. At Naturita? I would presume so. The record will show what it was. We were starting that up; we kept it going for the war effort. Our costs in Peru were around 40 cents.

Q. I am talking about the——

A. All right, using the same price, the competition that we had, we used 40-cent oxide from Peru. Now, when we had to sell oxide, we weren't at the mercy of anybody—we had 40-cent oxide. It wa sless than that; it was fifty—well, it was about 40-cent oxide completed. The ore came up from Peru——

(Testimony of Edwin D. Bransome.)

Q. In '46 you had 40-cent oxide? 1946, after the war, you had 40-cent oxide somewhere?

A. I think—I can't be sure whether 40-cent oxide——

Q. How many pounds of oxide did you need for ferro-vanadium—two?

A. Yes, approximately.

The Court: How is this material?

Mr. Alioto: If your Honor will let me develop it, I will show you how it is material.

The Court: I want you to have some basis for the development. What has this got to do with this lawsuit?

Mr. Alioto: If he had 40-cent oxide, if your Honor please, that would be a price of ferro-vanadium cost of [2141] production of about $1.30, and it was being sold at $2.70, which I think is a matter of monopoly pricing that the jury can consider. But I don't think it was 40-cent oxide in 1946, either. I think it was 85-cent oxide.

Q. (By Mr. Alioto): Do you have any recollection as to whether it was 85-cent or 40-cent oxide in '46-47?

A. No. You have all the records on that. And the records are here.

Q. Well, that record has not been admitted, on the matter of costs.

Now, let me read on:

"While the price of 65 cents per pound of V.O. would be a Godsend to V.C.A., in view of their present 85-cent cost, the principal concern of T.B.

(Testimony of Edwin D. Bransome.)

was the possibility that this material would also be available for open market sale at the same price, which might enable competition to enter the ferro-vanadium field by way of Continental Ore or other competitors."

Now, are you in a position to say that the man who wrote this letter in January, 1948, did not have this conference with you?

A. I am in a position to say he did not; that did not occur. [2142]

Q. O. K.

Q. (By the Court): At that time was Mr. Burwell connected with the company?

A. I don't remember, your Honor. I think he probably had just resigned. And I'm taking that merely from reading the transcript that I read since I came out here a couple of days ago.

Mr. Alioto: We offer the letter that the Court rejected, indicating the effective date of resignation was February 1, 1948, after this letter. The Court rejected that letter, so that is not in the record, if your Honor please.

The Court: The date of the letter is what?

Mr. Alioto: The date of the letter is January 22, 1948. The testimony is he talked with Mr. Bransome, as a result of the writing of these letters in December of January, and then wrote a report of this meeting to the Atomic Energy Commission.

Q. (By Mr. Alioto): There did come a time in 1948 when you learned the Atomic Energy Commission had made a statement that it was going to tie

(Testimony of Edwin D. Bransome.)

its uranium sales to the vanadium market, didn't you? A. I don't recall that.

Q. There has been admitted in this case as Plaintiffs' [2143] Exhibit 59-A, a statement of Mr. Gustafson. Did you know him, Mr. Bransome?

A. Yes, I knew him quite well.

Q. And you worked with Mr. Gustafson in connection with various war matters and the Atomic Energy Commission?

A. Not various war matters. John Gustafson was in the raw materials end of the Atomic Energy Commission. I never knew him otherwise.

Q. Were you an adviser of the Atomic Energy Commission? A. No, sir.

Q. Or any member of the Atomic Energy Commission?

A. No, sir. I was one of their boys that produced for them, that was all. I never advised them. They told me.

Q. His statement, Mr. Bransome,—and it is evidence in this case put in through the testimony of Mr. Burwell—is:

"The Atomic Energy Commission statement is that since the estimated annual production of the Colorado Plateau, even under an accelerated program, would be small in relation to total U. S. requirements and the supply available from foreign sources, it appeared more economical to obtain the uranium as a by-product from vanadium operations which were geared to the vanadium market."

Did you know, sometime in 1948, that the Atomic

(Testimony of Edwin D. Bransome.)

Energy Commission had depreciated the Colorado Plateau to that extent, [2144] **and had decided to tie its uranium production to vanadium sales?**

A. No, sir.

Q. Did you know that at that time? That never came to your attention?

A. Never. To my knowledge, I don't recall. It may.

Q. Don't you recall, then, that some big fight developed in Congress, and elsewhere, in which ultimately that opinion was reversed, after Lillienthal left the Atomic Energy Commission?

Mr. Archer: I object to that, your Honor. David Lillienthal did not leave the Atomic Energy Commission. He fulfilled his term.

Mr. Alioto: After he left or fulfilled his term.

Mr. Archer: And he was asked to continue by the President, and he refused.

Q. (By Mr. Alioto): In 1949 do you remember an argument about tying uranium to vanadium sales at all?

A. No. I remember—my advice to the Commission was to go ahead and put the ore through and let the chips fall where they may.

Q. Then your testimony is, so it will be clear in the record, that up until 1949 you do not even remember that there was a highly publicized argument about tying uranium to the [2145] vanadium ore, is that it?

A. No, sir, I don't remember.

Q. Did you ever ship vanadium oxide to other

(Testimony of Edwin D. Bransome.)

manufacturers of ferro-vanadium except the French principal for which you acted as agent, as you say?

A. Shipments to whom?

Q. To any other manufacturer of ferro-vanadium. A. In the United States?

Q. Anywhere.

A. I don't recall that. You would have to show me the record on that. The sales department knows more about that than I know.

Q. Did you have any policy against shipping vanadium oxide to some firm that manufactured ferro-vanadium?

A. No. If we had sufficient oxide on hand we would sell it to anybody at the proper price. We sold oxide to anybody that wanted to buy it. We sold it to steel makers, we sold it to everybody, and we would have sold them ore if they wanted to use it in the bath. They never could use the ore or oxide in the steel bath.

Q. In connection with that, do you share the opinion of Mr. Remmers—let me go a little bit back on that.

Did your company ever offer oxide for direct reduction in the steel bath?

A. Yes, sir. [2146]

Q. It did. And it sold oxide for direct reduction in the steel bath?

A. I don't know how much we sold.

Q. Did you put anything in it beside vanadium oxide itself? A. Not to my knowledge.

Q. Do you share Mr. Remmers' view——

(Testimony of Edwin D. Bransome.)

A. I don't know what Mr. Remmers' view is.

Q. Let me ask you, in your opinion does the addition of fluorspar to vanadium oxide add anything to it on a direct reduction basis?

A. Well, it has been pretty nearly 20 years before I was metallurgically inclined, but the addition of fluorspar wouldn't sound very persuasive to me, that it would add to the value of vanadium in a tool field, or anything of that kind.

Q. Would you agree with the statement that French dressing would be more efficacious than fluorspar?

Mr. Holland: Your Honor, this witness is not a metallurgist, as Mr. Remmers was. I don't know why he is going into these technical questions.

The Court: Objection sustained.

Q. (By Mr. Alioto): Do you know a Dr. Saklatwalla?

A. No, I never knew Dr. Saklatwalla.

Q. He was a director of your company, wasn't he? [2147] A. Not while I was there.

Q. Wasn't he employed by your company?

A. Not while I was there.

Q. Did you ever meet him?

A. I never met him.

Q. Do you know his reputation as a metallurgist?

A. Well, that was open to dispute. You will find some people who thought he was pretty good and some people who thought he was lousy.

Q. Did you ever have him patent, or did you,

(Testimony of Edwin D. Bransome.)

in 1938, possess a patent on the direct reduction of oxide with the use of fluorspar in the steel bath?

A. Oh, gosh, I don't know. But I will tell you—I shouldn't say this, but in my opinion, I'll bet it didn't work.

Q. Well, if it didn't work, someone made some representations to the government that might be a little serious.

A. Through Saklatwalla?

Q. Isn't this a Vanadium Corporation of America patent that I am holding in my hand?

A. Yes, United States Patent granted to Benjamin B. Saklatwalla in 1931. I don't know what it is for.

Q. Who owns that patent?

A. I imagine it was assigned to the—I don't know. It may be Ferangi owned it. Was it assigned?

Q. Read the heading on that patent and tell us who owned [2148] the patent.

Mr. Holland: Your Honor, I do not see any materiality to this.

A. That is 1931.

Mr. Alioto: Mr. Holland spent a long time trying to establish the fact that the addition of fluorspar was some kind of unfair trade practice.

The Court: It is absolutely immaterial. Objection sustained.

Mr. Alioto: Your Honor permitted Mr. Holland to spend two hours on that subject.

The Court: The Court has ruled. This is something back in 1931.

(Testimony of Edwin D. Bransome.)

Mr. Alioto: This is a patent that was in effect in 1938, if your Honor please, and Mr. Holland implied the addition of fluorspar was an unethical practice, and your Honor let him do it. Here is a patent held by these people in which they make a representation to the United States Government that it is efficacious.

The Court: We will have no further discussion on that matter now. The Court has ruled on it and it has no apologies for its ruling.

Mr. Alioto: We think it unfair that Mr. Holland was permitted to go on for three hours examining on that subject when he had a patent in his pocket that shows the [2149] efficacy of the addition of fluorspar.

Mr. Holland: I haven't gone on any subject for three hours.

Mr. Alioto: Yes, in your examination of Mr. Leir.

The Court: Just a moment.

I do not think counsel has a right to object to the time others have taken in this case.

Mr. Alioto: Particularly when I am not given one minute on that subject.

I would like to make a record on this. It is inconceivable to me that this is not an unfair ruling. Just let me establish this for the purpose of the record.

Q. (By Mr. Alioto): You do agree with me, don't you, that this is a vanadium patent that was held by your company during the time that you

(Testimony of Edwin D. Bransome.)

were its president? You do agree with me, don't you?

A. Why, I assume that patent—1931—why, it was run out.

Q. It ran out in 1949, or 1948.

A. Was there an extension on it? Seventeen years is the life of a patent.

Q. 1931 plus 17 is what? A. 1948.

Q. So it was in effect when you were president of your company and during the entire period of time, was it not? [2150]

A. There were thousands of patents we had. I don't know whether that was one of them or not. I never saw the patent.

Q. From the title——

Q. (By the Court): Do you know anything about it? A. No, sir, not a thing.

Q. (By Mr. Alioto): From the title of the patent isn't it apparent that it belonged to Vanadium——

The Court: Let us assume it did. He says he doesn't know a thing about it.

Mr. Alioto: If he did, I offer it to show that this company made representations to the United States Government on the basis of which they secured a monopoly on the invention to the effect that vanadium oxide reduction in a steel bath was even more efficacious than the ferro-vanadium itself.

Mr. Holland: Before you read it may I see it?

Mr. Alioto: Mr. Holland had extensive examination that there was some kind of unethical prac-

(Testimony of Edwin D. Bransome.)

tice involved in putting fluorspar in vanadium oxide and selling it as a direct reduction in the steel bath——

Mr. Holland: I never made such a statement as that. I contended it was unethical to sell straight oxide at a higher ceiling price. [2151]

Mr. Alioto: I offer to prove that this patent, which I am offering for the purpose of showing that the Vanadium Corporation of America, through a vice-president and director of that company, made representations to the United States Government of the efficacy of using vanadium oxide in a steel bath with the addition of fluorspar specifically, and aluminum as well; that this patent was in existence during the entire period of time that Mr. Bransome was the president of this company; and that despite the patent, there was a supression of the use of vanadium oxide in the steel bath, because they were making more profits on their ferro-vanadium.

Your Honor, you recall Mr. Priestley wrote a letter—

The Court: Just make your offer.

Mr. Alioto: That is right.

We offer to prove this is the same position taken by Mr. Priestley, and from this I think the jury can infer that the two companies acted jointly to suppress the use of oxide in a steel bath. We offer it for that purpose, and for the purpose of showing the actual facts that the addition of fluorspar to vanadium oxide is not as inefficacious as has

(Testimony of Edwin D. Bransome.)

been contended here by the chef d'oeuvre of the vanadium industry, Mr. Remmers, who thought that French dressing was more efficacious.

The Court: Your offer is rejected. It has nothing to do with thi. lawsuit. Immaterial. And could be only [2152] prejudicial.

Mr. Alioto: May we have this marked so we will know of what we are speaking at this point in the proceedings?

(The patent referred to was thereupon marked Plaintiffs' Exhibit No. 169 for identification.)

Mr. Alioto: Is your Honor also rejecting the offer of proof to the effect that the Vanadium Corporation of America deliberately suppressed this patent after securing it?

The Court: Yes, sir. Same ruling.

Mr. Alioto: Just to complete the record in that matter, if your Honor please, I would like to offer a series of other patents issued by the United States Government.

Mr. Hollar ': May I see them?

Mr. Alioto: Yes.

Let me just have them all marked as one. They tend to prove the same thing, namely, the metallurgical efficacy of vanadium oxide with the addition of a flux such as fluorspar or other material such as aluminum, and we offer this in connection with this witness, who has information about it, according to our information.

(Testimony of Edwin D. Bransome.)

(The group of patents referred to were marked Plaintiffs' Exhibit No. 170 for identification.)

Mr. Alioto: And we offer it to rebut, specifically, the extensive examination by Mr. Holland of Mr. Leir. Mr. Remmers said he was familiar with all the literature on this [2153] when he gave his French dressing crack.

The Court: Let us not have any argument at this time.

Mr. Holland: We object to them on the ground they are not even our patents, and have no bearing on this case. We were not contending—at least the Vanadium Corporation, in its examination of Mr. Leir, that there was anything wrong with putting a little fluorspar in it. We were contending there was something wrong in putting nothing in and then charging a price over the ceiling.

The Court: The offer is denied and an exception allowed. It is immaterial.

Q. (By Mr. Alioto): Now, Mr. Bransome, there is in evidence a document dated November 1943, which was a response to the Continental Ore Company by Mr. Gustav Laub, your assistant vice-president, when the Continental Ore Company requested a regular, dependable supply of ten to fifteen thousand pounds of vanadium oxide per month. Mr. Laub rejected that in November, 1943. At the time that letter was written,—and the letter is Exhibit 41—did Mr. Laub take up that matter with you, and did you discuss it with him?

(Testimony of Edwin D. Bransome.)

A. I did not.

Q. Do you remember whether the Continental Ore Company or the Apex Smelting Company requested a regular supply of [2154] vanadic acid from you in 1939?

A. No, I wouldn't say that I recall that.

Q. In 1940? A. No, sir.

Q. 1941?

A. It is a sales department matter.

Q. Do you have any knowledge that they requested a regular supply from you in 1941?

Mr. Holland: I do not believe that there is any evidence that they did, Mr. Alioto. I think the evidence is to the contrary.

The Court: He does not know, he says.

Q. (By Mr. Alioto): Are you aware of any request by the Continental Ore Company or the Apex Smelting Company for vanadic acid——

A. That is a sales department matter, Mr. Alioto. Any chief executive lets his sales department run the sales department and the operating department run the operating department. The only reason I was in this picture around the West was I really liked to go out there.

Q. You were pretty interested in the fact when they were dismantling the Apex plant, weren't you?

A. Not a bit. I don't remember anything about it.

Q. Come, now, Mr. Bransome.

A. Don't tell me I did when I didn't. [2155]

Q. Didn't Mr. Laub write you special reports

(Testimony of Edwin D. Bransome.)

about the Apex dismantling and your special interest in it?

A. I don't know what you mean by a special report.

The Court: We will take a recess until two o'clock.

(Whereupon a recess was taken until 2:00 o'clock p.m.) [2156]

Friday, June 20, 1958, 2:00 o'clock p.m.

EDWIN D. BRANSOME

called as a witness by defendant Vanadium Corporation, being previously sworn, resumed the stand and testified further as follows:

Cross-Examination—(Continued)

Q. (By Mr. Alioto): Mr. Bransome, I want to call your attention for just a moment to the government meeting that was held in June of 1941 about which I believe you already testified on direct examination. I think your testimony was that you were sitting there as a government officer of some type rather than as a representative of the Vanadium Corporation of America.

A. That's true.

Q. Now, then, there was, however, a representative of the Vanadium Corporation of America, was there not? A. That's right.

Q. Do you recall who that was?

A. Mr. Ward Miller.

(Testimony of Edwin D. Bransome.)

Q. Ward Miller? A. Yes.

Q. What position did he hold in the Vanadium Corporation of America?

A. Vice-President in charge of sales. [2157]

Q. Was there also a representative of the Electro Metallurgical Company or Union Carbide?

A. I don't remember. I assume that there was, Mr. Alioto. It was a general meeting of—a general meeting that Ernie Whiteside called for raw materials of a strategic nature.

Q. Now, you recall at that meeting that Mr. Leir made a statement that he thought that the—made a statement at the public meeting that he thought that the oxide was in short supply and that something should be done to encourage the production of oxide by the independent mills?

A. No, sir.

Q. Do you remember in that connection that he mentioned Shattuck and Blanding and Nisley & Wilson as mills which, if properly encouraged, could produce 51,000 pounds of oxide per month?

A. No, sir.

Mr. Holland: Is this in the testimony or is that what Mr. Leir said he couldn't remember?

Mr. Alioto: I am asking the witness whether or not this statement was made by Mr. Leir, not what the witness said.

Q. Do you remember Mr. Leir making a statement about what the problem was on supplies?

A. No, sir, I do not, sir, because I was not in that [2158] meeting for a very long period of time.

(Testimony of Edwin D. Bransome.)

As I told you, I was representing the industry of the country, between General Neustadt and Mr. Hillman, and I was there for a comparatively short space of time.

Q. Well, do you remember what, if any, statements were made by the representatives of the Electro Metallurgical Company and the Vanadium Corporation of America?

A. Do I remember any of those statements?

Q. Yes.

A. No, not at all. I don't believe they were made while I was in the room.

Q. Then you have no present recollection of the substance of anything that was said by Mr. Ward Miller, for example, of the Vanadium Corporation of America?

A. No, I stopped Mr. Miller from talking.

Q. How do you mean that you stopped him from talking?

A. Well, I stopped Mr. Miller because—I had never heard of Mr. Leir in the vanadium business, I had never heard of the Continental Ore Company, and I never heard—I heard of him as having a mill or a claim only, a claim, or having a mill or producing, really producing vanadium, and he started asking question of Ward Miller that were statistical questions and I said to Ward Miller: "Now, wait a minute. I think that those questions should be addressed to Dr. Wilbur Nelson who is conducting this meeting because they are confidential [2159] figures, and let them come from the

(Testimony of Edwin D. Bransome.)

Chair and not from you, Ward. I instruct you not to answer any more questions."

Q. Well——

A. "The Government has those figures." Now that—that was my—that's my sole—as far as I recall, that was my only statement or anything that I said in that meeting.

Q. I understand that that is what you said. Now, my inquiry is, do you remember that Mr. Ward Miller, except for this exchange on statistics, do you remember whether he said anything about the nature of supply and demand as of the time of the meeting? A. I do not, because——

Q. You have no recollection?

A. No, sir. I wasn't in that meeting long enough, I don't think, to know whether he did or not. I'm quite sure he didn't.

Q. Now, you certainly knew in April of 1942 that there was a mill called Apex that had been producing ferro-vanadium, hadn't you?

A. I don't recall in 1942—it wasn't a mill. There was no mill. Apex, as I found out later, Apex wasn't a mill.

Q. Well, it was producing ferro-vanadium by the aluminum method.

A. It was buying oxide and putting it in pots and adding aluminum and something else to it and producing—they bought [2160] an intermediate product from somebody who had produced it in mills of their own and claims of their own, and he put those in his pot. Now, that's all I know about

(Testimony of Edwin D. Bransome.)

it. I knew nothing about Apex, the conduct of it, what they had or anything, except that they produced exothermic vanadium.

Q. Did you ever see the product ferro-vanadium produced by Apex? A. Never.

Q. I show you what has been placed in evidence here as Plaintiffs' Exhibit 62, Mr. Bransome. Would you be good enough to look at the document—on April 14, 1942—and I call your attention to that initial along the left-hand side. Is that your initial there? (Examining.)

A. (Examining.) No. No, mine is bad enough, but it wasn't anything like that.

Q. It wasn't that bad? A. No.

Q. O.K. Now, then, one of the documents in the report—I will read it to you—is addressed to you. It is from Mr. Gustav Laub to—and he at that time was your vice-president in charge of sales, or was he in——

A. No, he was general manager of sales at that time, not vice-president in charge of sales. He later became that.

Q. Now, then, it is addressed to you, Mr. E. D. Bransome, President, and reads as follows: [2161]

"Inasmuch as the following information has been conveyed verbally, this memorandum, therefore, is for our records.

"With reference to the writer's memorandum of February 20 advising that Mr. Christiansen, vice-president of the above company, had informed us that they were going out of the vanadium business

(Testimony of Edwin D. Bransome.)

and had offered us their stocks of vanadium, raw materials, equipment, et cetera, as I have not heard further from Mr. Christiansen in this regard, I had Larry Johnson casually contact him by phone and tell him that I have not received the information that he promised to send."

Do you know who Larry Johnson was?

A. I think Larry Johnson represented us in some—probably in Chicago.

Q. He worked for the Vanadium Corporation of America? A. That's right.

Q. (Reading.)

"As a result, Mr. Christiansen, who is the vice-president of Apex, phoned the writer (that is, Mr. Laub) and stated that in going into the matter further they had run into some legal difficulties. Mr. Leir, president of the Continental Ore Corporation, with whom Apex has an agreement to furnish their entire [2162] production of vanadium, he acting as sales agent, objected strenuously to their breaching their contract, and upon referring the matter to their counsel, Apex were advised that Mr. Leir had a strong case against them and to make the most satisfactory arrangement with Mr. Leir that they could. This resulted, Mr. Christiansen advised, in Mr. Leir putting a proposition up to them in that they would produce vanadium at full capacity for a period of three months, after which time he would take over their equipment and raw materials contracts and produce the material himself. Mr. Christiansen therefore advised that

(Testimony of Edwin D. Bransome.)

they felt they would be obligated to produce at maximum capacity for a period of three months and have decided to proceed on this basis, but that they had not come to a definite conclusion about turning over the equipment and raw materials contracts after that time. The contract with Mr. Leir, he said, extended over the balance of the calendar year. And in the event the second part of Mr. Leir's proposition does not go through, Mr. Christiansen stated that they still proposed to offer us such raw materials as they had available, as well as plant equipment.

"The above information, at your suggestion, was conveyed by phone to Mr. E. K. Jenckes, Assistant Chief, Vanadium Branch, War Production Board."

Now, you remember having this discussion with Mr. Laub, don't you, Mr. Bransome?

A. That recalls a discussion—I don't remember it; it has been so long ago, and that one paragraph about E. K. Jenckes is the thing that brought it back to my memory—was that in line with our usual program with the Government, when they said they were going out of business, we got in touch with Jenckes—Laub got in touch with Jenckes and said: "A producer is going out of business. We want to report that to you." So he said he has offered the stock to us for sale. When the man came to us and told us that he couldn't sell us his equipment, I don't know whether we wanted the equipment or not—that would have to be determined by the mill at Bridgeville—but when the

(Testimony of Edwin D. Bransome.)

man—oh, Mr. Whatever his name is—Mr. Christiansen—said to Laub, "That deal is off," we were interested—we never said we would take it—we said we would consider it, but he said, "The deal is off," and he told me about it—he reported that to me because I was interested in all sources of supply. I said, "Don't forget to call up Jenekes and tell him that they are not going out of production; they are in production."

Q. And that is why you had him call Mr. Jenekes, is that it?

A. Definitely. There could be no other reason.

Q. Now, you knew at the time that Christiansen had dropped the matter and that Laub, through Larry Johnson, had resurrected these conversations, didn't you?

A. I think that we might have been interested in magnesite or something that they had, if they were going out of business. I don't think we were particularly interested in their equipment, but magnesite was hard to get in those days, and if he had magnesite to sell, that was probably—that is why—well, they turned it right over to the purchasing department and the purchasing department said that if they have magnesite or whatever was on the list, why, we are interested in buying it, because it came from Austria and it was difficult to procure, and I think that they might have been interested in buying that. As for the equipment, my best judgment tells me that they wouldn't have

(Testimony of Edwin D. Bransome.)

bought any more than possible. We had all we wanted.

Q. Now, then, the next ——

A. We might have bought the oxide because we were looking for oxide.

Q. The next special report, this paragraph that is underlined, and I asked you whether that was your signature, and the next special report from Mr. Laub, dated April 14, 1942, states, among other things:

"That Christiansen further stated that he would furnish us with the name of all of their suppliers of ores and oxides, the principal ones apparently being the Shattuck Chemical Company and Nisley & Wilson. He appeared to be most anxious that we obtain these raw materials rather than the possibility of Mr. Leir's getting them and continuing in the vanadium business."

Now, at that time that was brought to your attention, wasn't it?

A. I don't know what Mr. Christiansen's ideas were about Mr. Leir. He was his partner at one time, wasn't he, and I don't know why he should be interested in keeping him out of the business, if he had been his partner and working with him.

Q. Weren't you folks interested in the same thing and isn't this why he made the same proposal to you, Mr. Bransome?

A. Not a bit. Not a bit. We were in their—that letter does not say so. Those are not my initials and

(Testimony of Edwin D. Bransome.)

I don't believe they are initials or anybody's initials. They look like a couple of scratches.

Q. There is no doubt that Mr. Laub wrote that report, is there?

A. Well, it says "G.L." on the bottom of it. I assume that he did write it.

Q. All right, there is no doubt that Mr. Laub was the man who had contacted you about this problem just prior to [2166] this time, as you testified?

A. That would be his duty, to contact me as the chief executive of the company, to say that certain assets of another company are offered to the company. Mr. Laub couldn't buy them. He had to come to me and ask me whether I wanted to buy or recommend to the Board that the assets of a company be purchased by the corporation. I couldn't buy it myself; that had to go to the Board of Directors. I could make a recommendation. If it was in excess of ten thousand bucks, that all had to go to the Board and be decided upon by them. That was routine. This stuff is not heinous about him discussing the thing with me. He just made it a matter of record, the discussion he had with me, and I told him, "Now, don't forget to tell Jenckes." That is what this letter says. Jenckes was in charge of vanadium at the time.

Q. He is working for you folks now, isn't he?

A. No.

Q. Has he ever worked for you?

A. No, never worked for us.

(Testimony of Edwin D. Bransome.)

Q. Or for Union Carbide?

A. I have no idea.

Q. And, the final paragraph:

"We had an interesting discussion concerning low copper grained aluminum which they produce and release with necessary priority approval and I therefore turned [2167] him over to our purchasing department with regard to this item."

A. Low grained copper—low grained aluminum was used by us in reduction of vanadium in the exothermic process, and it was just procurement, and if he had any or was in a continuous business, the business of continuous supply of that, we were only too glad to get it, and if he wanted to become a supplier of ours—Mr. Laub didn't say anything to him, I didn't say anything to him—he just said: "Go and see the purchasing department, and if they are interested, and I am sure they will be, you can probably do business with them." That is what I assumed Laub said. I can't think of anything else.

Q. So then you bought 200,000 pounds of this from him?

A. We bought—we would have bought it from anybody.

Q. At 13½c.

A. I don't recall if we even bought it. I don't recall the price of it. That is the purchasing department, the manufacturing department did that, but if we could have gotten this grained aluminum from him, we certainly would have bought it from him

(Testimony of Edwin D. Bransome.)

because we would have bought it from anybody. It was hard to get and we did not have a graining machine ourselves at the time and graining aluminum with a paddle is a little difficult to do. I don't know whether you realize it or you know the process or not, but it was difficult to [2168] procure at that time, and our purchasing department, as Mr. Laub said, "Take it up with the purchasing department" and, if they could have got it, they would have done it, because we were constantly in need of it.

Q. Wasn't the price of fine aluminum at that time about 15c?

A. I don't know.

Q. You don't recall?

A. That might—I don't think—I don't know enough about it to know whether grained aluminum was secondary aluminum or not.

Q. Why is it you didn't try to buy any aluminum before this time from this company? You knew it existed, didn't you?

A. As far as I am personally concerned, I didn't. The purchasing department may have.

Q. Wasn't this the start of commercial relations with the Apex Smelting Company and your company?

A. I don't know. As far as that goes——

Q. All right.

A. Wait a minute now, I would like to finish that up.

(Testimony of Edwin D. Bransome.)

Q. You go ahead and say anything you want about anything.

A. If they sold us for 13c when the price was 15c, I don't understand that at all. Our purchasing agent must have been pretty good.

Q. I asked if fine aluminum was 15c. This is a low [2169] copper grained aluminum.

A. Well, if it is a secondary aluminum, 13c might have been the going price for it.

Q. You don't know that it was, do you?

A. I certainly do not. I don't know anything about the transaction.

Q. Now, then, just about the same time you personally were out there negotiating to take the Blanding supply away from Apex, weren't you?

A. I never negotiated with anybody to take the supply of the Blanding—Blanding—what, Blanding's oxide?

Q. Yes. A. Never.

Q. Did you go out to Los Angeles and meet with a man named Garbutt about this time?

Q. Who did you go with?

A. Myself.

Q. Did anybody accompany you on that trip, Mr. Bransome? A. No, sir.

Q. And you talked to Mr. Garbutt alone?

A. Yes, sir.

Q. Can you fix the approximate time of this? Was it about January 1942?

A. I don't know what date it was. I am sure that it is in the record some place, and that could

(Testimony of Edwin D. Bransome.)

be done. You can fix it for me. I will take whatever you say.

Q. I think the record indicates that the contract was dated about May of 1942, but didn't you contact him before the contract was drawn up?

A. Oh, yes.

Q. About four or five months before?

A. I would think so. An amusing thing was they told me Mr. Garbutt was a lone wolf and a hermit. Nobody could get near him. I said, "Let's see who he is." I picked up "Who's Who" and found he was president of the Los Angeles Athletic Club. There were 10,000 members there and I couldn't see that he was a recluse. I remember that.

Q. In any event, you did buy those Garbutt claims? A. Definitely.

Q. In January 1942 your company did buy the vanadium oxide [2171] from the Blanding Mines, didn't it?

A. I don't know whether it did. I assume it did. Let's say they did.

Q. And you knew at the time you were negotiating with Garbutt, didn't you, that the Blanding Mines was one of the suppliers of Apex?

A. No, sir. I didn't know whether it was Apex or anybody else. They were sporadically making oxide. Now, to whom they sold that, I don't know.

Q. Mr. Bransome, from 1930 on, Apex aside, from 1938 on, you and the Electro Metallurgical

(Testimony of Edwin D. Bransome.)

Company were the only producers of ferro-vanadium in the country, weren't you?

A. I don't know. I believe so.

Q. That is something you would know, isn't it, Mr. Bransome? A. No, it is not.

Q. Just the two companies?

A. Mr. Alioto, if you can get hold of vanadium oxide, a pot, and some grain aluminum, and something with which you can light it, you can produce ferro-vanadium of a grade that will be saleable.

Q. It is not difficult to do that, is it?

A. I don't think so.

Q. And it does not require an awful lot of money to get into that, does it? [2172]

A. I don't know what the investment is.

Q. You just said it wasn't very hard, you just get a pot and throw something in it. Would you say about $25,000 to do it?

A. I have no idea. The grinding machinery and all that stuff would cost. I don't know what it would cost to be in business. Mr. Alioto, I want to repeat, I didn't know anything about Apex and I don't know anything about Apex today. I don't remember anything about it.

Q. You do not remember anything perhaps. It is true that you were the only two producers of aluminum from 1938 on to 1949 exclusive of this Apex production, is it not? Will you agree that that is true?

A. We would be very big millionaires and not

(Testimony of Edwin D. Bransome.)

fussing around with what we are fussing around with.

Q. That was true, wasn't it? You were the only producers of ferro-vanadium?

A. You didn't say that. You said aluminum.

Q. That is a slip. I am sorry.

You were the only producers of ferro-vanadium, weren't you?

A. Yes, I think we were.

Q. You had 100 percent of that business?

A. I don't know, sir. From what time on?

Q. From 1938 through 1949. [2173]

A. I don't know. I can't recall. But I will take any record that anybody gives me that says that Apex or anybody else produced ferro-vanadium.

Q. And the only competition that grew up in the whole period was the Apex Smelting Company, so far as the production of ferro-vanadium was concerned?

A. They were not competition as far as I was concerned because I didn't know anything about them, and they had been competition, I would have regarded them as such.

Q. Now, Mr. Bransome, I don't want to be argumentative, but if you received this memorandum from Mr. Laub that he was in Apex to buy this business, how can you say that you do not know anything about it?

A. I said as a competitor. I didn't recognize them as competitors because I didn't know anything about them. This memorandum was written.

(Testimony of Edwin D. Bransome.)

which Laub brought in to me and stated that there was certain stuff for sale.

Q. (By the Court): Did you know up to that time anything about Apex?

A. Not a thing that I can remember. I can't remember anything about Apex.

Q. (By Mr. Alioto): Mr. Bransome, you were in a government meeting in June of 1941 when Apex was represented there by Mr. Leir——

A. I didn't know who Mr. Leir represented in that meeting. [2174] I asked who Mr. Leir was and whether he was accredited in the meeting.

Q. All right, and you found out who he was, didn't you?

A. I did not. I said "Mr. Nelson will answer those questions, Mr. Leir, and not you."

Q. You want your testimony to say that in 1941 and 1942 you did not even know there was a producer in Chicago of ferro-vanadium who was the only other one in the business?

A. I would say as far as I was concerned, they were of no moment to me at all, and not enough for me to remember them.

Q. Not enough, and yet your vice-president and general sales manager writes personal inter-office memoranda to you?

A. The vice-president and general sales manager discussed with me the fact that somebody was going out of business and had certain equipment for sale. He couldn't buy it, Mr. Alioto. He had to come to me, as I went through a long discourse

(Testimony of Edwin D. Bransome.)

with you to tell you that it had to come up to me and then to the board.

Q. This Monticello plant was built for you with the help of government funds, wasn't it?

A. That is right.

Q. And then you operated the Monticello plant for a while and then there came a time when you tried to operate buy the Monticello plant from the government? [2175]

A. When did we try to buy it?

Q. Didn't there come a time when you tried to buy it after the Metals Reserve and the government program had come to an end?

A. I don't know whether we did or not.

Q. In any event, you did get the Monticello plant? You definitely went to the Atomic Energy Commission?

A. That is a fine plant, by the way.

Q. And then thereafter the United States Vanadium Corporation sold to you the Durango plant, didn't it?

A. I would say Vanadium didn't sell us the Durango plant. We bought the United States Durango plant from the Metals Reserve—from the Defense Plant Corporation, as I recall it.

Q. How much did you pay for it, do you recall?

A. I don't know, but it must be a matter of record.

Q. Was it about $75,000 or less?

A. I don't know. It was in lousy shape. Some

(Testimony of Edwin D. Bransome.)

idiot tried to put acid through the roaster—I think it was Mr. Burwell—in some experiment that he ran through. He put acid through the top of the roaster so it was completely out——

Q. It was the same roaster from which you were getting vanadium oxide to the tune of three million pounds, wasn't it?

Mr. Archer: I take it this "idiot" testimony is not being offered against Union Carbide?

Q. (By Mr. Alioto): There wasn't too much damage [2176] involved if they were getting three million pounds when they were in trouble?

A. We were not in trouble. They were in trouble.

Q. As a matter of fact, when they gave you that oxide in 1939, at the beginning of the war there, you were very short of oxide, weren't you, because you were closed down in Peru for two months before that?

A. In 1938 and 1939 we were bringing ore up from Peru, and I think you have figures there that show you—I think those are the figures, aren't they?

Q. I hate to waste time on it.

A. You aren't wasting time because you just made a statement there that we didn't have any vanadium, and we brought up three and a half million pounds, four million pounds, millions of pounds from Peru.

Q. Do you know Mr. Kett?

A. Very well.

(Testimony of Edwin D. Bransome.)

Q. A very good man? Does he know what he is talking about?

A. On certain subjects he does.

Q. On September 12th, 1939, Mr. Kett writes, according to Plaintiffs' Exhibit 56:

"Due to the dry season just closing in Peru, and the consequent two months annual shutdown of plant, our stocks of oxide in Bridgeville must be immediately supplemented. Our position is particularly [2177] acute on account of the war. We have already received a quantity of oxide from the U.S.V. which they claim exceeds any amount which they are likely to get off Maggie C. Hence a delivery of ore to them and the storage in mill yard which will release immediately to us a certain additional quantity of oxide."

The Court: What is the date of that?

Mr. Alioto: September 12, 1939, if your Honor please.

The Witness: Where was the storage?

Q. (By Mr. Alioto): Do you think Mr. Kett knew what he was talking about in that first paragraph, Mr. Bransome?

A. Before you talk about Peru, there were dumps of ore down there by certainly a great many thousands of tons that ran something like six to seven percent better than anything out on the plateau. That was ore that could be brought up at any time and was brought up.

Q. Read that first paragraph and then tell me

(Testimony of Edwin D. Bransome.)

whether it was ore that could be brought up at any time.

A. "Due to the dry season just closing in Peru, and the consequent two months annual shutdown of plant, our stocks of oxide in Bridgeville must be immediately supplemented. Our position is particularly acute on account of the war. We have already received a quantity of oxide from the U.S.V. which they claim exceeds any amount which they are likely to get off the Maggie C. Hence a delivery of ore to them and the storage in mill yard which will release immediately to us a certain additional quantity of oxide."

Q. Was his statement that your position was acute correct?

A. Yes, they wanted ore and we gave them ore.

Q. And you overdrew your account by 300,000 pounds from the Maggie C., didn't you?

A. Well, we fulfilled it from other claims on the same basis. That was a toll arrangement.

Q. Here is one letter, Mr. Bransome, written by you marked "Personal and Confidential" to Mr. Viles, the mine superintendent in Monticello. Will you be good enough to examine that document and then just tell us what your recollection of that transaction was, if you remember?

Mr. Holland: May I see it?

Mr. Alioto: Sure.

Q. Before answering, Mr. Bransome, I would like to show that document to your counsel.

(Testimony of Edwin D. Bransome.)

A. That is all right. I would like to read it again.

Mr. Alioto: We will offer this in evidence, if your Honor please. [2179]

Q. Do you recall what that transaction was about, Mr. Bransome?

(The document referred to was thereupon received in evidence and marked Plaintiffs' Exhibit 171.)

A. I don't recall that specific transaction, but the memorandum, upon reading, brings back what it was—what in all probability it was.

Q. Let me read it first and then we will get it. This was from Mr. Bransome on May 25th, 1943, to Mr. D. W. Viles, Mine Superintendent, Monticello, Utah.

Subject, under that "Personal and Confidential":

"It occurred to me the thing we want to do is to have our trial on the 1400 tons of roscoelite made as quickly as possible at Durango and I cannot recall how long you said it would take to make delivery, that is, provided we discussed that point."

Who was operating Durango at that time?

A. We were, must have been.

Q. In 1943? Wasn't U.S.V. operating at Durango during that period?

A. I don't know.

Q. "With the above objective in view, it seems to me that you might be able to arrange with Johnny Hill and Paige Edwards the shipment of some of their roscoelite ore at Naturita, even

(Testimony of Edwin D. Bransome.)

though we have to absorb the trucking, inasmuch as if it is desired to move the Naturita pile, the sooner we do it, the better.

"If trucks are going back empty for Fall Creek and Omega, it would seem that the main expense ve would be subject to would be the loading.

"You probably have already thought of this, but if not, I think it might be arranged with Johnny and Paige in such a manner that would not prejudice any future price that we might get from Naturita.

"Will you let me hear from you as to what you think of this idea?"

Now, the Johnny and Paige referred to was John Hill of the U.S.V. Company, was it not?

A. No. That was M.R.S.

Q. He was with U.S.V. as agent for M.R.S., was he not? In any event, his name was John Hill. We already know who he was.

A. That is right.

Q. And the Paige was Paige Edwards?

A. Yes, and he was working for M.R.S.

Q. What was so personal and confidential about this matter? A. I don't know. [2181]

Q. You wrote the letter.

A. How can I remember what was personal and confidential 20 years ago? That was roscoelite ore which would not run through the Naturita plant. Roscoelite ore is different entirely from carnotite and it was adapted—it was not adapted to the process at Naturita and we did not run it and

(Testimony of Edwin D. Bransome.)

couldn't blend it, and didn't want to run it through, and we would rather have shipped that 1400 tons to Durango where they could use it and were using roscoelite ore because they were taking a lot of it from Placerville, and there was one big mine down there—I forgot what it was—I don't remember—we bought it later.

Q. When was the first time that you realized that the uranium content in this ore had a value more than anybody had previously imagined?

Mr. Holland: I object to that question. It has nothing to do with the case.

Mr. Alioto: I think it has, if your Honor please. We had a lot of discussion about uranium.

The Court: You may answer. I have a curiosity, too.

A. You see—may I go into a little detail on it? It will only take a couple of minutes.

Q. Yes.

A. U_3O_8, the yellow oxide, was never taken out of the [2182] ore except where it occurred in trees.

Now, a tree was something where the igneous intrusion had come up, the hot metal, and displaced a tree, so that when we cut it out, you could see actually the twigs. You could see the branches, the twigs and everything else in the trunk of that tree, and it was really where a tree had been displaced.

That was red oxide and yellow oxide. We took that out and we took the V_2O_5, red oxide, for ourselves, and we put on the side the other U_3O_8, the yellow oxide, the uranium, and sold it to a man by the name of Balsley, and who sold it in turn to

(Testimony of Edwin D. Bransome.)

companies like Vitro or those that used it for ceramics.

Q. Yes, but that was known for some time.

A. That was always known, as long as I was in the business.

Q. When was it you realized the uranium had a value other than that?

A. When the Manhattan District came to us.

Q. Didn't you know this prior to 1941?

A. No, sir. The first time I knew it, regardless of dates, is when the Manhattan District came to us and wanted uranium and we, of course, our scientific people immediately said, "Oh, oh, it looks like they are after this. It looks like they are fishing some place." [2183]

But they kept us in the dark for two months before they would admit that it was to be used for war purposes, and they still would never admit that it was to be used for an atomic bomb.

The Court: What was the Manhattan District?

A. The Manhattan District was a group of officers under General Groves.

Q. Was it a war agency?

A. It was. General Groves got this group of officers and they were given the job and two billion dollars to produce the atomic bomb and it was the greatest secret ever kept. We never knew what the next fellow was doing, and the next fellow didn't know what anybody else was doing, just General Groves and a few of his staff knew what was going on in the whole picture, and for several months, to answer you, Mr. Alioto, they concealed the fact

(Testimony of Edwin D. Bransome.)

from us that it was for the war effort, but we certainly could not believe it was not, because here there were these uniformed officers coming into our business and talking about uranium and holding things secret.

Q. You knew uranium then had a value even though you did not realize what the value was, is that right?

A. I surmised it had a value if the government was going to buy it. The Manhattan District wanted to buy it. It was very secret. [2184]

Q. When that was bought, was there a corresponding increase in the price that you paid to the miner?

A. I don't recall the dates, but the increase certainly came on.

Q. Isn't it a fact that for two years or so the miners were not being paid for the uranium content of the ore?

Mr. Holland: If your Honor please, Mr. Alioto has filed a suit in Salt Lake City against these same defendants. This has nothing to do with this case, but he is trying to get some information for the other case. That is what this is all about.

Mr. Alioto: I submit, if your Honor please, here are two companies that had meetings in connection with the fixing of the ore price.

The Court: Now, that is not a fair statement to this Jury. There is no evidence that has been introduced yet that there was an agreement to fix prices.

(Testimony of Edwin D. Bransome.)

Mr. Alioto: If your Honor please, there is evidence from which the Jury can infer that there was an agreement to fix the price.

The Court: I don't know how much imagination the Jury has, but they may.

Mr. Alioto: I submit that again, that there again your Honor is being an advocate for the defendant.

The Court: No, I am not. [2185]

Mr. Alioto: Instead of an impartial judge. When the president of one company meets with the president of another company to discuss ore prices, your Honor?

The Court: This Court simply wants absolute justice done and I do not want inferences drawn from inferences. If you have something that you can base an inference on, that is all right, then you can infer.

Mr. Alioto: I think your Honor knows the cases on price fixing, and that is quite an unfair statement on price fixing, with which your Honor is very familiar.

Mr. Holland: If your Honor please, I object to this line of testimony on the ground it is immaterial in this case.

Mr. Alioto: We offer to prove at this point, so there is no question about it, that both companies for at least two years did not pay the miners for the uranium contained in that ore when they knew the value and were getting money for it themselves.

The Court: Objection sustained.

Mr. Holland: We didn't get paid for it, either.

(Testimony of Edwin D. Bransome.)

Mr. Alioto: I can't develop it apparently. We have no further questions, Judge.

The Court: Anything further?

Mr. Holland: I have nothing further.

Mr. Archer: I have no questions. [2186]

Mr. Holland: May Mr. Bransome be excused?

Mr. Alioto: Yes.

The Witness: What is that?

Mr. Holland: You may be excused, Mr. Bransome.

(Witness excused.)

The Court: May I ask, Mr. Holland, how many more witnesses you have?

Mr. Holland: One. This is our last witness.

Mr. Alioto: I think we can conclude this afternoon without question. I know that is a consummation devoutly to be wished by your Honor and the Jury and the rest of us.

The Court: The reason I ask the question is, as you know, I have been assigned for a definite time.

Mr. Alioto: We expect to conclude this afternoon, Judge. We discussed that earlier and I think we can go on schedule.

GUSTAF LAUB

a witness called by and on behalf of the defendant Vanadium Corporation of America, and being first duly sworn, testified as follows:

The Clerk: Will you state your name and address?

(Testimony of Gustaf Laub.)

The Witness: My name is Gustaf Laub. My address is Wellwyn, Riverside, Connecticut.

The Court: That is not Irish, is it?

The Witness: It wasn't this afternoon, up until this afternoon. [2187]

Q. Mr. Laub, during the period '38-'39 were you employed by Vanadium Corporation of America?

A. Yes, sir, I was.

Q. And how long had you worked for them prior to that time?

A. Since 1919 when the Vanadium Corporation first formed. I had been with its predecessor, the American Vanadium Company, since 1916.

Q. What position did you hold in the Vanadium Company of America on July 1, 1938?

A. I was assistant vice-president and general manager of sales.

Q. And what positions did you hold with the company after that date?

A. I was assistant vice-president, general manager of sales, until 1949, when I became general manager—when I became vice-president in charge of sales, and in 1952 I was elected a director of the corporation. I held those two titles, vice-president in charges of sales and director, if director is a title, until I retired last December.

Q. Mr. Laub, in 1938 and 1939 you were general manager of sales, is that correct?

A. Yes, sir.

Q. There is in evidence some correspondence relating to a request by Continental Ore Corpora-

(Testimony of Gustaf Laub.)

tion dated July 28, 1939, to buy vanadium oxide from Vanadium Corporation of America. Do you recall that incident? A. Yes, I do.

Q. Will you tell the jury what happened since most of it was by telephone conversation, and what the result was, and why?

A. Yes. During that period there were rumblings of war on the other side and a great deal of speculation going on, and we received a great many telephone calls, visits and letters from persons and companies and brokers of whom we had never heard before. Some of them didn't even know how to spell the name "vanadium."

Well, about that time we heard from the Continental Ore Company, and they had inquired for quantities, small quantities, I believe, of vanadium oxide for shipment domestically, and we told them what our policy was, that we sold—I think at that time they were inquiring for ferro-vanadium, also. We told them that our organization had its own selling department, and that it was our policy to sell our products through our own sales organization, due to the technical aspects of the subject.

Q. And on that basis you refused their request?

A. I refused to quote them for domestic.

Q. Did you quote them for foreign?

A. I believe I did. I quoted them foreign—I don't [2188] know whether it was just at that time or not, but it was within a short time I quoted them for export. I think the price I quoted them then was $1.30.

(Testimony of Gustaf Laub.)

Q. I refer to your pencil memorandum (handing document to the witness).

A. Yes, this is it. This pencilled memorandum that I wrote, it says——

Do you want me to read it?

Q. All right.

A. (Reading.) "Phone Mr. Hirschland, quoted $1.30 f.a.s. New York, freight and insurance. Today's rates allowed——"

I guess that is insurance rates—they were fluctuating up and down (continuing reading):

"— Stated Buffalo delivery requested——"

Gee, I wish I had written better (continuing reading):——

"——Advised of price too high and wanted domestic price quotation. Advised we had our own sales organization and did not sell domestically through brokers."

I wrote that on August 8, 1939.

Q. There is in evidence some letters, which I will read—they are very short.

On November 16, 1943, Vanadium Corporation received a letter from Continental Ore, Mr. Leir (reading): [2189]

"Would appreciate your offering us 10,000 to 15,000 pounds of V_2O_5 contained in vanadic acid per month. We would be ready to sign a contract with you for a fixed length of time."

On November 19th you replied (reading):

"In response to your inquiry of November 16 requesting quotation on ten to fifteen thousand

(Testimony of Gustaf Laub.)

pounds monthly of V_2O_5 contained in vanadic acid, we regret very much that due to our present commitments we are not in position to take on this additional tonnage at the present time.

"Perhaps if you were still interested at a later date and our situation changes we will be glad to look into the matter further at that time.

"Regretting our inability to be of serve to you at this time, we are

"Yours very truly."

Will you please state what the facts were in respect to——. In other words, you refused to quote on the basis that you were not in a position to take on the additional tonnage. Why were you not in a position?

A. What is the date of that, please?

Q. November 16, 1943.

A. I think vanadium was still under control at that time by the government. The situation was such that our reserves [2190] of vanadium were low and we had a rule of thumb within our own organization that if the stocks or inventories of vanadium pentoxide got below one month's supply we were in very dangerous and very short supply. We endeavored at that time, I believe, to maintain inventories of black oxide, or vanadium pentoxide, as it has been referred to, up to three months, in order to feel safe and sure that we would have enough intermediate product to make ferro-vanadium to supply our domestic customers principally.

(Testimony of Gustaf Laub.)

Q. Well, do you know how much you had on hand on that date?

A. Well, we had about—at that time we had about a month's supply of oxide.

Q. How much was a month's supply?

A. Well, at that time we were selling, oh, I would say an average of 250,000 pounds of contained V in ferro-vanadium, or anywheres from 150 to 250 thousand pounds. That would be in terms of vanadium oxide required to produce that 150,000, would be 300,000 pounds of contained V_2O_5 in oxide.

Q. (By the Court): That is by the month? Per month?

A. Per month, yes, sir.

Q. (By Mr. Holland): Well, now, you made an examination of your figures for the case in Denver and determined how much supply you had on [2191] hand at that time. Do you recall what that figure was? A. This is 1943?

Q. That's right.

A. That figure was, I believe, somewhere around 103,000 pounds of oxide. At that particular time we had less than one week's supply of V_2O_5 on hand for the production of ferro-vanadium. When I referred to it that way, I mean the black oxide.

Q. In your letter you state (reading):

"Perhaps if you were still interested at a later date and our situation changes, we will be glad to look into the matter further."

(Testimony of Gustaf Laub.)

As far as you know, did Continental Ore ever come back and ask you to quote again?

A. Not anywhere near that time, no. It must have been much later if they did.

Q. Now, 1940, there is evidence here—in April of 1940 I believe it was—that you refused to quote Apex Smelting Company. Do you know the basis on which you refused to quote Apex Smelting Company?

A. The same reason. We were short of oxide by our regular policy.

Q. Do you know what your oxide inventory was on that occasion?

A. On that occasion, I don't recall exactly on that date, [2192] but around that time I do know we had not more than a month's supply of oxide.

Q. There are two letters in evidence, Mr. Laub, which I will read. One directed to you from Continental Ore (reading):

"Gentlemen:

"As you know, the Apex Smelting Company of Chicago has been in the aluminum smelting business for more than 20 years. Last year they entered into the production of certain ferro alloys by the alumino thermic process and have created good facilities for this particular manufacture which, if necessary, could be easily enlarged. Would you be interested in farming out a certain quantity of vanadic acid and allow us to convert it for your account to a low-carbon ferro-vanadium? We shall be awaiting the pleasure of your reply to the above

(Testimony of Gustaf Laub.)

suggestion and hold ourselves at your disposal for any personal discussion you might like to have on the subject."

To that you replied, on June 18th (reading):

"In response to your letter of June 16th, wish to advise you that we would not be interested in your proposition of furnishing you vanadic acid for conversion into ferro-vanadium, as all of our production is consumed in the manufacture of our own products. We thank you, however, for having referred this matter to us."

And then on the 21st there is a further letter from Mr. Leir to you (reading):

"We have received your letter of June 18th. Just for the record, may we state again that we did not ask you to furnish us with your vanadic acid for our own use. We offered you our facilities in Chicago for the purpose of converting your material for your account on a toll basis. In other words, we would return the finished ferro-vanadium to you."

Now, will you state what was involved in your making a decision not to farm out this ferro-vanadium?

A. Yes. We never had any difficulty in refining the final product of ferro-vanadium. We had ample facilities to take care of that. Our principal difficulty was in keeping abreast of our requirements, raw materials, of which we considered vanadium pentoxide one.

Does that answer your question?

(Testimony of Gustaf Laub.)

Q. In other words, you had ample facilities for converting oxide into ferro-vanadium?

A. That is right, sir.

Q. There is in evidence and has been frequently referred to, and was again with Mr. Bransome, certain memoranda from you to—written by you in connection with a call which a Mr. [2194] Christiansen, vice-president of the Apex Smelting Company, made on you originally on February 20, 1942. On that occasion you wrote a special report.

What is a special report?

A. We had different types of reporting. The general report, that went to as many as 20 people throughout the organization. A special report was one that would probably get into the hands of only persons that were required to have the information. That was more for the benefit of the stenographer, the secretary writing the report, so that she wouldn't make too many copies for circulation. So the special report went only to possibly four, five or six people, whereas the general report was circulated all over the organization.

Q. Mr. Laub, did you know Mr. Peterson prior to the time he called on you on this occasion?

A. Mr. who?

Q. Mr. Peterson.

Mr. Alioto: Christiansen.

Mr. Holland: Christiansen. Pardon me.

A. I only met him very slightly, oh, somewhere around in the trade, probably, probably a metal show or convention somewhere. About all I knew

(Testimony of Gustaf Laub.)

was a Mr. Christiansen when he called. I didn't know just exactly what company he was connected with at the time, until his card was sent in to me, and it showed that he was vice-president. [2195]

Q. (By Mr. Holland): Of Apex?

A. Of Apex, yes, sir.

Q. Did you know a Mr. Singer or Mr. Lippa of that company at that time? A. No, sir.

Q. Did you know anyone at Apex other than Mr. Christiansen?

A. No one else except Mr. Christiansen. He came in out of the cold.

Q. Had you ever done any business with him before? A. None whatever.

Q. Had you ever discussed in any way with anyone at Apex their entry into the ferro-vanadium business? A. Not at all.

Q. Did you know anything at that time—prior to the time Mr. Christiansen came in—about their decision to go out of business?

A. Never heard of it.

Q. Did you in any way, when you were talking with Mr. Christiansen, try to influence him to go out of the business?

A. I listened to his story.

Q. Is that about what it amounted to?

A. That is so. I reported it the best that I recalled.

Q. Now, several times in these memos the fact is referred to that they are going to tell you what the vanadium oxide [2196] sources that they have

(Testimony of Gustaf Laub.)

been drawing on, who their suppliers were. There is a statement in the last memorandum which Mr. Alioto recently read (reading):

"——; that he further stated he would furnish us with the names of all of their suppliers of ores and oxide, the principal ones apparently being Shattuck Chemical Company and Nisley & Wilson. He appeared to be most anxious that we obtain these raw materials rather than the possibility of Mr. Leir's getting them and continuing in the vanadium business."

Did you in any way—did you ask him for these?

A. I did not. He was trying to make a sale, and he was throwing forward all the inducements he could, thinking that might be one.

Q. Did he indicate to you why he didn't want Mr. Leir to get this oxide, or——

A. No; he seemed to be sore at Mr. Leir about something, but I didn't know what it was at the time, except what he told me.

Q. Mr. Laub, have you ever made any agreement with anyone in the Union Carbide organization—— A. I have not.

Q. ——concerning—let me finish.

A. Oh, pardon me.

Q. You never made any agreement of any kind, is that [2197] correct? A. That's right.

Mr. Alioto: He knows the script.

Mr. Holland: Well, he knows he hasn't made any agreement, if that is what you mean.

(Testimony of Gustaf Laub.)

The Witness: I have heard that question asked so many times, your Honor.

Q. (By Mr. Holland): You were a witness in the Denver case, weren't you, Mr. Laub?

A. Yes.

Q. You have heard this a good many times. Have you ever made an agreement with anyone in the Union Carbide organization respecting the sale, marketing, distribution of vanadium products of any kind, or the prices to be set thereon?

A. Have you finished?

Q. Yes.

A. I never did.

Q. Have you ever heard of any such agreement being made——

A. I never heard of——

Q. —— between Union Carbide and Vanadium Corporation of America?

A. I never did.

Mr. Holland: That is all. [2198]

Q. (By the Court): When did you first learn that you were charged with that?

A. In Denver. In Denver, when the Denver trial came up.

The Court: We will take a recess at this time.

(Short recess.)

Cross-Examination

Q. (By Mr. Alioto): Mr. Laub, on your direct examination I think you indicated that the first call from Mr. Christianson was a personal call

(Testimony of Gustaf Laub.)

rather than a telephone call, is that right? You said something about the presentation of a card.

A. No, he presented a card in our outside office.

Q. Yes.

A. And that was sent in to me, that a Mr. Christianson was calling. On that card I noticed he was vice-president of a company.

Q. I take it he had made no advance telephone appointment with you; he just walked in, is that it?

A. That I don't recall.

Q. In any event, during the conference he told you they were going out of the vanadium business and he had certain equipment and some small stock of oxide that he wanted to sell, is that it?

A. I think there was some magnesium.

Q. Magnesite bricks, were they?

A. Yes.

Q. Did you know at the time what the magnesite bricks were used for in the vanadium process?

A. I don't think he said bricks, I think he said magnesite. Oh, yes, I had known for years that magnesite was [2199] used to line pots.

Q. To make the crucible?

A. Refractory.

Q. Did he tell you at that time he had approximately 50,000 pounds of vanadium oxide on hand?

A. That is what I reported and that is what he must have told me.

Q. Was 50,000 pounds an amount of vanadium pentoxide in February, 1942, you felt it essential to get your hands on?

(Testimony of Gustaf Laub.)

A. I didn't feel it essential. I reported that. I knew we were looking for oxide.

Q. Then he came in and tried to make a sales pitch to you, is that what happened?

A. I didn't know at the time what kind of a picture he was painting. It appeared to me that he was trying to sell something.

Q. When he left, did you care whether he got in touch with you again or not?

A. Well, that is a strange way to put it, I believe, but when he left—yes, I wanted him to get in touch with us, or we in touch with him, because I knew at that time we were looking for oxide. We were getting all the oxide we could. I knew we were short of raw materials of one kind or another of which magnesite was a very important one.

Q. As a matter of fact, he dropped it, didn't he? You [2200] didn't hear from him, and then you initiated a move to get him in touch with you, isn't that what happened?

A. I told my district manager in Chicago, I said, "Get hold of Apex. They were in here. They were going to give me some information. Don't make too much about it, but see what the answer is."

Q. (By the Court): What did he tell you about giving you information when he left you?

A. When he left me he said he would furnish me with a list of how much magnesite they had on hand, exactly how much vanadium pentoxide, and

(Testimony of Gustaf Laub.)

the equipment that they wanted to sell. He didn't know what the equipment was.

Q. You did not hear from him for about two or three weeks, isn't that what happened?

A. It could be.

Q. And then you initiated a move to keep the contact alive?

A. I asked our Chicago district office to call him up.

Q. At that time was there any discussion that he would give you information he had about his supply contracts with Nisley & Wilson out in Colorado, with Shattuck, and others?

A. I don't know just how he put it. Those contracts were sort of Greek to me, the supply contracts, but I reported exactly. The way he put it to me is the way I understood it. [2201]

Q. You were interested in getting that information, weren't you? A. Which information?

Q. The information about his supply contracts, where his source of supply was.

A. He promised to give me further information, or he said he would. He volunteered that, and I asked him—I followed it up through our Chicago office and told him we hadn't heard from him.

Q. Why would you write a special report of this kind to the president of the company?

A. That was a regular report. We called it special merely for the stenographer's purpose of circulating it to a limited few people, rather than to the whole organization.

(Testimony of Gustaf Laub.)

Q. Why would you take a matter involving 50,000 pounds of oxide and some magnesite——

The Court: Isn't that an office matter, now—why they would do it, if they did it?

Mr. Alioto: I want to know why he takes up a matter like this with the president of the company, in view of the somewhat casual interpretation he is putting on it now, if your Honor please.

The Court: I think you are going too far in your questions. That was a matter that you handled in your own office. [2202]

The Witness: Yes, your Honor.

Q. (By Mr. Alioto): You took it up with the president of the company?

A. With everyone else in the company of any consequence that might be interested in such a proposition. The purchasing agent probably got a copy, the vice-president in charge of sales probably got a copy, the production manager probably got a copy, and the key people in the organization there got copies.

Q. Isn't it a fact that you knew Mr. Bransome would be interested in the fact that the Continental Ore Company and the Apex Smelting Company would be going out of the ferro-vanadium business?

A. I wouldn't have known of it except it was such an unusual thing, a small producer that we had heard of only indirectly was going out of the vanadium business and offering its facilities and materials that they wanted us to purchase and take off their hands.

(Testimony of Gustaf Laub.)

Q. What do you mean you only heard about them indirectly? Didn't you make it your business to keep in touch with what they were doing?

A. Whenever we heard from them in the trade we did. We didn't follow Continental Ore or Apex any more than we followed any other person—broker, producer or prospective producer. We didn't single them out at all. [2203]

Q. You were interested in their activities because they were competitors of your company, weren't you?

A. I wouldn't say they were highly competitive in any manner, because the amount of material that they offered us—we heard of, the information we heard, it was just spasmodic, here, there and a few other places, and we were out, naturally, to get all the information we could about them, or any other company that might have been offering vanadium on the market.

Q. Isn't it a fact that during this period of time you were aware of the fact that it was the only competitor in the business, the only producer of ferro-vanadium in the business, outside of the Electro Metallurgical Company and yourselves?

A. We would never compare the two.

Q. I am not asking you to compare the two. I am asking you whether you knew it was the only competitor in the ferro-vanadium business that had arisen since 1938.

A. There was so little material offered by them, or we heard there was so little material offered by

(Testimony of Gustaf Laub.)

them, that, while we were interested, we didn't go out of our way too much, about them or about anyone else.

Q. Mr. Laub, why would you write this language in a special report on April 14th:

"With reference to the writer's previous report of February 20th, Mr. Christiansen of the above [2204] company called again yesterday stating that they had now gotten their vanadium situation straightened out,"——

And then you say, in the second to the last paragraph:

"He further stated he would furnish us with the names of all their suppliers of ores and oxide, the principal ones being Shattuck Chemical Company and Nisley & Wilson. He appeared to be most anxious that we obtain these raw materials rather than the possibility of Mr. Leir's getting them to continue in the vanadium business."

Why would you make a special report like that?

A. Would you please read the first sentence there?

Q. Yes, the first sentence of the letter reads:

"With reference to the writer's previous report of February 20th, Mr. Christiansen of the above company called again yesterday stating that they had now gotten their vanadium situation straightened out, and that they had definitely concluded to dismantle their vanadium plant at once and go out of the vanadium business permanently."

A. That is sufficient.

(Testimony of Gustaf Laub.)

Q. If you were not interested in those folks at that time——

A. They were merely following up the other report he had made, that is all. [2205]

Q. You had not dealt with this company commercially, had you—the Apex Smelting Company—before this time? A. I, personally? No.

Q. Your company, the Vanadium Corporation of America. A. I don't think so.

Q. You had not bought anything from them?

A. I wouldn't know that, because if there were any purchases—they were purchasers of secondary aluminum, and we were users of aluminum, some secondary, but mostly primary aluminum.

Q. What is secondary aluminum? Scrap?

A. Scrap aluminum remelted.

Q. The primary aluminum at that time was selling at about 15 cents a pound?

A. I don't know.

Q. You don't recall that? A. No.

Q. You paid a pretty high price for this scrap aluminum you bought from them, didn't you?

A. I don't know if we bought any from them. Scrap aluminum?

Q. Yes. Didn't you make a purchase from them shortly after these interviews, Mr. Laub?

A. I wouldn't know that. I turned Mr. Christiansen over [2206] to our purchasing department when he was talking to me about things we might want to buy.

Q. You heard Mr. Bayer testify there was a

(Testimony of Gustaf Laub.)

sale of about 200,000 pounds of aluminum, didn't you?

A. Yes, but that was the first I heard about it.

Q. That was the first you heard about it?

A. Yes.

Q. But you turned him over to your purchasing department at this time, didn't you?

A. Yes, sir.

Q. You say:

"We had an interesting discussion concerning low copper grained aluminum, which they produced and released."

A. That is why I turned him over to the purchasing department, because low copper aluminum was desirable.

Q. Was it customary for you to report to Mr. Bransome purchases of aluminum, 50,000 pounds of oxide? A. Oh, yes; yes.

Q. Mr. Laub, isn't it perfectly clear from this correspondence that the most important thing you were interested in was the fact that they were going out of the vanadium business?

A. I reported the whole conversation.

Q. Your company also produces—in addition to vanadium, [2207] your company sells ferro-chrome, doesn't it? A. Yes.

Q. And sold it for many years? A. Yes.

Q. What is the approximate proportion between your sales of ferro-chrome and your sales of vanadium? A. Now?

Q. No; during the 1940's.

(Testimony of Gustaf Laub.)

Mr. Holland: Your Honor, I do not believe this is material.

The Court: I don't see its materiality, but he can answer if he knows.

A. I can't give you the tonnages that were produced, or their ratio, because I can't compare ferro-chrome with ferro-vanadium.

Q. (By Mr. Alioto): Did you sell more ferro-vanadium than ferro-chrome?

A. I don't think so at that time. What do you mean, per ton, or what?

Q. Per pound.

A. Per ton or per pound? Per pound, we sold more ferro-chrome than ferro-vanadium — a lot more.

Q. When did you get into the ferro-chrome business?

A. We got into the ferro-chrome business in 1923, I believe. [2208]

Q. Did Union Carbide have anything to do with getting you in that business?

A. Not at all, no sir. We bought out an organization, the U. S. Ferro-Alloys Company, with which Union Carbide had no connection, so far as I know.

Mr. Alioto: We have nothing further, if your Honor please.

Mr. Holland: Nothing further.

This defendant rests.

(Defendant Vanadium Rests Case in Chief.)

Mr. Archer: I have just one or two things, but nothing of this witness.

The Court: Very well, you may step down.

(Witness excused.)

The Court: The Court is a little interested in what these retired men are going to do over the week-end.

A Witness: I am going home, your Honor.

Another Witness: My wife is with me.

Mr. Archer: Your Honor, the first is a small matter. In yesterday's testimony Mr. Bigler—and I do not mean to be criticizing the reporters—but occasionally, instead of the name "Garbutt," which, you will remember, was the owner of those claims, the name "Carbide" appears. I thought that might refer to us. And the only pages that I [2209] could find it was on page 1994, 2004, and 2007.

Mr. Alioto: We have no objection to that being physically changed, Mr. Archer. There is no problem about that.

Mr. Archer: The other thing I forgot, I took the deposition of Mr. Gifford of the Atomic Energy Commission showing the amount of vanadium oxide by month that we produced for them, and I won't offer the whole deposition, but I will just offer his statement of what it was.

Mr. Alioto: I have no objection to that.

Mr. Archer: I can't find the original in the file. It came in this way: It was put in the flat file, instead of separate.

(The deposition referred to was marked Defendant U Exhibit 5-T in evidence.)

[See Book of Exhibits.]

Mr. Alioto: If your Honor please, we have no testimony by way of rebuttal. However, solely for

the purpose of completing this record, it is the belief of this plaintiff that the testimony of the chief officers of the Union Carbide and of the Vanadium Corporation, in connection with the presentation of their defense, has made relevant those documents prior to 1938 which show the nature of the 1938 agreement. I recognize it is only a formal gesture. I know your Honor's attitude on it. But solely for the purpose of completing my record and as a matter of rebuttal we now re-offer all the [2210] documents dated prior to 1938, including the MacGuigg Report, which the Court, up to this point, has excluded. I anticipate the Court's ruling, but I am making it as a technical matter.

Mr. Holland: Same objection.

Mr. Archer: Same objection.

The Court: The motion will be overruled—I mean sustained, and the Court is adhering to its former ruling.

Mr. Alioto: Except for that offer of proof, at this point, if your Honor please, we have no further evidence to present.

I do not know how your Honor handles the motion to apply the evidence in this case, but we have submitted certain instructions on the co-conspiracy rule. I take it that will be handled by the Court as a matter of instruction?

The Court: If you gentlemen will come into my chambers as soon as we adjourn we will discuss those matters.

The jury may be excused until Monday morning at ten o'clock.

(Whereupon the jury were excused until Monday, June 23, 1958, at 10:00 o'clock a.m.)

(The following in chambers, outside the presence of the jury.)

(Informal discussion as to proposed instructions.)

Mr. Alioto: The language I would propose is that there has been reference to this case of a prior proceeding by the Government of the United States in Denver. I instruct you that this case has absolutely nothing to do with your deliberations, and you are free to arrive at a verdict without reference to the result in that case.

Mr. Holland: I am sure we had a statement at the beginning to be submitted to the jury and I think it points out the difference between the proof beyond a reasonable doubt and upon which——

Mr. Neaher: We discussed that.

Mr. Alioto: Why do we need anything more than this? This is a correct statement of the law.

Mr. Holland: Let's see if we can't agree on something by Monday morning.

Mr. Alioto: How about that language? We don't have too much time between now and Monday morning.

Mr. Holland: We have got it all written out. We can give it to you Monday—we can give it to you tomorrow.

Mr. Archer: The only thing I would suggest, if you are putting in a statement with regard to the Denver case, that there also has been reference to a

government indictment [2212] and that indictment was dismissed by the government.

The Court: Do you want any reference made to the final judgment in that case?

Mr. Alioto: Well, reference has already been made to that final judgment. I think the Court should simply say the result there has no probative value in this case.

The Court: I didn't understand that any statement had been made as to the final judgment.

Mr. Holland: Yes. I made that in my opening statement.

Mr. Alioto: And we objected strenuously to that.

Mr. Holland: I made that in my opening statement, and your Honor let me do it because you had given Mr. Alioto a free rein to say whatever he wanted, and I didn't remember that Mr. Alioto objected.

Mr. Alioto: Oh, I objected all right, objected on the ground that the measure of proof was different and the jury might be led to believe, because there was an acquittal in the government case, there ought to be an acquittal here.

Mr. Holland: As I recall, you said: "Well, if Mr. Holland is allowed to say that, I think the Court should tell the jury the difference in the quality of proof." That is my recollection. [2213]

Mr. Alioto: I objected to it being said.

The Court: Well, I will let you deliberate over that until Monday morning and see if you can't agree on a proper instruction or to eliminate any instruction.

Mr. Holland: We will give you our proposed language.

Mr. Alioto: Tomorrow?

Mr. Holland: Yes.

Mr. Alioto: Fine.

(General discussion.)

Mr. Archer: I will make a motion for the defendants I represent and for each of them, a motion for a directed verdict on the same grounds that I had previously stated at the close of the plaintiffs' case, and I will also make a motion for dismissal on the ground that upon the facts and the law the plaintiff has shown no right to relief, again on the same grounds as I stated at the close of the plaintiffs' case, and as I stated in a memorandum which I filed.

Mr. Neaher: On behalf of the defendant Vanadium Corporation of America, I, too, renew the motion for a directed verdict on the entire case upon the same grounds as stated before the Court at the end of the plaintiffs' case.

The Court: And the Court will reserve any ruling on the motions.

Mr. Alioto: If your Honor please, I think there [2214] is a technical matter. I want to be sure there is no problem about waiver here, that before that motion, in connection with the conspiracy charges, some cases say that you have to make a motion to apply. Before that motion is made, that is, to apply the evidence offered against one defendant against all the defendants, under the instructions of the Court, under the co-conspiracy rule—

and I take it the Court proposes to give those instructions on the co-conspiracy rule. I do not know whether the Court wants me to make that motion to apply or simply assume our proposed instructions on the co-conspiracy rule sufficiently constitutes a motion to apply.

The Court:

Mr. Alioto: I would think so, too, but I don't want anybody saying later on in an appellate court that they do not and there should have been a formal motion to apply all the evidence.

The Court: I do not know of anybody in connection with this case who is indicating any desire to waive anything.

Mr. Alioto: That is about right, Judge, and that is why I do not want to start now. I think formally I should make the customary motion in connection with these cases.

I would move at this time, if your Honor please, that the evidence heretofore offered as against one defendant and not the other be made to apply to the other defendant as well [2215] under instructions to be given by the Court on the co-conspiracy rule, that such declarations are not receivable or such acts or evidence are not receivable against the defendant against which they were not offered until the jury is satisfied that there is prima facie evidence of combination and conspiracy.

I would point out to the Court in connection with that rule that the cases of Standard Oil against Moore and the Flintkote case, to which reference has been made before, indicate the somewhat broad

scope the Ninth Circuit has given to what constitutes prima facie evidence of conspiracy, joint action or joint refusals, uniform prices over a long series of time in the light of economic factors with respect to cost of production, and so I would at this time make that motion to apply all the evidence in the light of the Court giving an instruction under the co-conspiracy rule. I think we ought to submit such an instruction and we will do that sometime tomorrow, if the Court will be available to receive that proposed instruction.

The Court: You can submit it at the office tomorrow at 10:00 o'clock. I do not see how that is really necessary in the face of the instructions.

Mr. Alioto: All right.

The Court: I think this, that after you have read the instructions, if you deem it necessary, then you can make that as an additional requested instruction. [2216]

Mr. Alioto: Fine. Then do I understand from counsel that they are making no point that the motion has to be acted on at this time?

Mr. Archer: No, I am making no point of that. The only thing I object to is that you keep citing the Moore case and the Flintkote case and those cases the defendants want.

Mr. Alioto: I will tell you what those decisions are. Those decisions have been described here as decisions for the plaintiff for the first 21 pages and then on the 22nd page the judgment is reversed.

Mr. Archer: I will be glad to settle for that kind of decision. In any event, Mr. Holland, I take it,

the attorneys for the Vanadium Corporation of America are making no point that the motion to apply should be acted upon at this point?

Mr. Holland: I would say so.

Mr. Archer: Just so the record shows we oppose the motion on the ground that no prima facie evidence of conspiracy has been shown.

Mr. Holland: We likewise oppose such a motion.

Mr. Alioto: It will be understood that the motion will be in effect ruled upon by the nature of the instruction given by the Court under the co-conspiracy rule.

Mr. Archer: Yes. [2217]

Mr. Holland: Yes.

Mr. Alioto: Is there any objection to our withdrawing the exhibits over the week-end so we both have access to them, so we won't have to be shifting papers before the jury?

The Court: Whatever arrangement you make among yourselves will be satisfactory.

Mr. Archer: We will take the plaintiffs' exhibits and you take the defendants' exhibits

Mr. Alioto: That is as good an arrangement as any.

The Court: Of course, if you read all those exhibits there won't be too much time for argument.

Mr. Alioto: No. We do have a problem. Your Honor remembers the statistical exhibits, the first eight or ten statistical exhibits; we have statistics running from 1933 up to 1949, and the Court admitted those exhibits only so far as they relate to statistics after January 1, 1938. How do you want

to handle that? Do you want to cover them up or do you folks want to retype the exhibits and leave out the 1933 to 1938 years?

Mr. Archer: I do not want to retype the exhibits.

Mr. Alioto: Suppose we physically cover up the years in question. Would that be agreeable?

Mr. Archer: Just so when they go to the jury [2218] the prior years are not visible.

Mr. Alioto: And that is the only thing that I think has to be done physically with the exhibits. We will do that on that basis. We will get some kind of paper and paste it over, some kind of plastic transparent paper.

Mr. Archer: I will tell you something that is easy that I use. That is Mystic Tape.

(Thereupon an adjournment was taken until Monday morning at 10:00 o'clock) [2219]

* * * * *

Mr. Alioto: If your Honor please, on behalf of the plaintiff, we have had an opportunity to look over the Court's instructions, and we honestly do not feel that under the somewhat stringent decisions of this Court we would be making our record complete here simply by writing certain things in the margin, because the Courts, as I view the decisions, enjoin upon us the necessity of calling specific objections to the attention of the Trial Court before the instructions are given. I think I can very hurriedly go through these and make a record of the objections which the plaintiff has to the instructions.

I also take it, gentlemen, that it will be deemed

that these objections are being made after the instructions, in fact, have been given?

Mr. Neaher: That is satisfactory.

Mr. Archer: That is satisfactory.

Mr. Alioto: Do all counsel agree on that?

Mr. Neaher: We agree.

Mr. Archer: Yes. [2221]

Mr. Alioto: Therefore we shall not be in technical violation of the rule that apparently requires it to be done at that time.

With respect to the Court's proposed instructions, our first objection is to some of the language in connection with Instruction 3, in which it states —and perhaps we may be partially responsible for this—in the last two lines of page 4:

"Plaintiffs were eliminated from the vanadium industry by this alleged violation of law."

Actually, I think the evidence shows that the plaintiff always kept intact their organization, which dealt very extensively in other ferro alloys and other ores and other minerals. So to the extent that they have an organization available to operate in the business, I do not assume that they were totally eliminated. And I just wonder if the addition of the words "virtually eliminated" would cover that factual difference between this language and what I think the record discloses.

The Court: I do not see any objection to that—"virtually eliminated."

Mr. Alioto: If your Honor please, with respect to Instruction No. 4, the first paragraph of that instruction, we have a serious objection to the Court

characterizing this as a brokerage and jobbing business only. We think in the light of [2222] this record, when a man comes to an organization and makes a joint venture with that organization, such as the Apex Company, under which he gives that organization a certain know-how in connection with the production of ferro-vanadium, and he gives them certain process secrets, which apparently are so good that they are ultimately imitated in America—they were not secrets in Europe; they were well known in Europe, where most of our steel art comes from, anyway—when that man goes out and undertakes to get the material supplied by the extensive effort the plaintiff here made, and encouraging the independent mills, and paying for the materials on the basis of advanced deposits in banks, that that kind of activity I do not think is properly characterized as a brokerage and jobbing business. The Court did eliminate from the evidence the proper testimony with respect to the exact nature of the plaintiff's business, which is reflected in its profits and losses for each of the years in its total mineral alloy and ore business, and those statements reflected on their face something like five percent of the plaintiff's entire business is commission business, so-called, and we think in view of that, the Court having excluded that testimony, it should not characterize the plaintiff's business as a brokerage or a jobbing business.

The Court: Isn't that what you stated in your complaint? [2223]

Mr. Alioto: No.

Mr. Neaher: We would agree to the elimination of the words "brokerage and jobbing," so it would read that part of their business concern was vanadium products.

Is that agreeable, Mr. Alioto?

The Court: How is that, now?

Mr. Neaher: Strike out the words "brokerage and jobbing of."

Mr. Alioto: It is line 2 of page 5. Eliminate the words "brokerage and jobbing of."

Mr. Neaher: Is that agreeable, Mr. Archer?

Mr. Archer: Yes.

Mr. Alioto: As I indicated, we may well, in some of our earlier pleadings, have led the Court into this langauge, but we think the record having been made, our proposed instruction was as follows:

"The plaintiff is and has been engaged in the business of arranging for the manufacture and distribution of ferro alloys."

The defendants added the brokerage and jobbing.

Mr. Holland: If we can agree on that change, why don't we do it that way?

Mr. Alioto: Let the jury determine what the present business is.

Mr. Holland: That is correct. [2224]

Your Honor, we have agreed on this.

The Court: What it is you would strike out?

Mr. Alioto: Strike out "brokerage and jobbing of."

The Court: Just strike out the words "brokerage and jobbing of."

Mr. Neaher: If Mr. Alioto will permit interrup-

tion, with respect to Instruction No. 4, it would be our belief here that under the ruling of the Court with regard to the immateriality of the Atlas Steel's evidence in this case, and, indeed, with regard to the failure of the proper basis for the proof under 5, that Paragraph 4 and 5 should come out.

The Court: The only reason I included them is because that is part of the allegation in the complaint, and No. 4 is merely a brief recitation of the allegations of the complaint. I have covered 4 in No. 4 by specific instruction.

Mr. Neaher: We recognize that. We thought possibly, if your Honor agreed with your view, that the complaint has virtually been amended by your Honor's ruling, that that later instruction would be unnecessary. I think it is Instruction 42.

Mr. Alioto: The state of the record on that is there is some testimony about Atlas Steel, and some testimony that they had Atlas as a customer, and they did not have them as a customer, but the hiatus is our alleged reason why they lost the customer. But there is evidence in the record on [2225] Atlas —a good deal of it.

The Court: I believe it would be safer, gentlemen, to leave this in, and then have the specific instruction.

Mr. Neaher: Very well.

Mr. Alioto: In connection with that same paragraph, if your Honor please, we are also alleging that the plaintiff bought certain oxide and certain ferro-vanadium from the defendants at prices which were fixed by agreement, and we feel there is

an item lost in that evidence. We had a purchase in 1943, for example—in June of 1943—of 10,000 pounds of oxide, which was sold to us by the Electro Metallurgical Company. That price was $1.10. Your Honor may remember the dispute about price, the $1.10 and $1.15. It is our contention that the $1.10 price was fixed by agreement, and the market price should have been the same price that they charged the Vanadium Corporation of America three or four years before when the price was still $1.10. There was no change in the price structure during that period.

The Court: That is a matter of evidence.

Mr. Alioto: We do make that claim, that we are entitled to that difference, and also that claim in connection with the $75,000 purchase of vanadium at a later period of time, that we purchased that at a price which was fixed by agreement.

The Court: That is a matter of evidence. [2226]

Mr. Alioto: So long as we are not inhibited.

Mr. Archer: There is no evidence of price at which you purchased.

Mr. Alioto: Yes, there is. We have your price list, what you charged everybody, and we have the final amount, and we think we can take one-fifth of that final amount, claiming that the market price should have been one-fifth lower, according to the evidence given by Mr. Remmers, Mr. Priestley, and Mr. Burwell.

In any event, the big item of damages is not mentioned in this Instruction No. 4, and that is the joint refusal of both defendants to deal with us.

The Court: That is a matter of evidence.

Mr. Alioto: All right, so long as it is the understanding this statement of claims is not exclusive, then we may argue to the jury.

The Court: Yes, that is right.

Mr. Alioto: We would further object, if your Honor please, to the last paragraph of Instruction No. 8, which is on page 8.

The Court: What is your objection?

Mr. Alioto: Our objection is that the Court should go further in connection with its statement that it not consider certain evidence against certain of the defendants, and go on to say: [2227]

"* * *, subject to the rule on declarations and acts of co-conspirators as I shall hereinafter give it to you."

The Court: The Court has stricken out evidence previously on the matter—"You are instructed you are not to consider such evidence for any matter or for any purpose."

Mr. Alioto: No objection to that sentence.

The Court: "Where the Court has advised you certain evidence is to be considered with relation to a particular defendant, you may not, of course, consider the evidence in relation to any other defendant."

Well, now, you couldn't consider, unless they were a part of the conspiracy.

Mr. Alioto: Subject to the co-conspiracy rule as you later give it to them.

The Court: That is later covered fully.

Mr. Alioto: We object to the last paragraph of Instruction 10 on page 9.

The Court: "Each defendant is entitled to individual consideration of the evidence as applied to it and determine whether that particular defendant participated in any combination or conspiracy."

Mr. Alioto: Yes. We think the statement should also be made "subject to the co-conspiracy rules hereinafter stated."

The Court: I think that is covered. [2228]

Mr. Alioto: Perhaps it is covered in that fashion, although we think it ought to be made clear at that point.

With respect to Instruction 20 on page 15, this paragraph in general does not permit the jury to find, in our view of it, that the Defendant Union Carbide, or that the Union Carbide group of defendants standing alone may have violated both Section 1 and Section 2. We think that a 75-percent control of the oxide production plus elimination of independent mills pursuant to a policy of elimination, that that, standing alone, under the Alcoa decision, constitutes a violation of Section 2, regardless of what the Vanadium Corporation may or may not have done.

The Court: Suppose Union Carbide owned all of them?

Mr. Alioto: Union Carbide might, if it owned it all, not necessarily, but might be found guilty to have monopolized by itself, regardless of V.C.A. But as I read this instruction——

The Court: Let us read the instruction:

"The plaintiff's complaint is brought under the anti-trust laws, in so far as this action is concerned —unless there has been agreement, combination or conspiracy among two or more parties"——

Mr. Alioto: That is our objection, right there—among two or more persons. I think the U. S. Vanadium [2229] Corporation, standing alone, can be found to have violated the anti-trust laws.

The Court: I can't agree with you.

Mr. Alioto: That is our objection. In 22 the Court implies one defendant alone, namely, the United States Vanadium Corporation, cannot be found to have violated Section 2. It seems to me to require an agreement between U. S. Vanadium Corporation and somebody else. It is our view that one company which has 75 percent of the oxide and has excluded independent sources, and has excluded that pursuant to a policy to control the Plateau, and has available 90 percent of the available accessible ore deposits on the Plateau, that one company can be guilty of monopolization standing alone.

The Court: "It is in no respect a violation of the law that a number of individuals or corporations, each acting for himself or itself, may own or control a large part, or even of a particular commodity, or all of the business in a particular commodity."

Is that objectionable?

Mr. Alioto: Yes, because then you couple it with the idea that you have to have at least two people to constitute a violation of Section 2.

The Court: That instruction is taken verbatim

from the instruction that was approved by the Supreme Court in the divider case. [2230]

Mr. Alioto: Yes, I understand, if your Honor please, that it is possible for somebody to have 100 percent under certain circumstances. If there are two factories, one factory having 50 percent and another factory having 50 percent, and one factory burns down, the factory with the 50 percent has a monopoly.

But, your Honor, it goes on to say that the essential element of monopoly is the existence of a combination or conspiracy, which implies there must be two people.

The Court: That instruction is taken from that case.

Mr. Alioto: In that case you had four or five tobacco companies, any one of which constituted a monopoly standing alone. That is not the case here. You think the United States Vanadium Company, standing alone——

The Court: I can't agree with you. Are you objecting?

Mr. Alioto: I object. The instruction does not permit the jury to find the United States Vanadium Corporation, standing alone, could have violated Section 2, if other things had happened.

The Court: You are objecting to what part?

Mr. Alioto: The whole instruction, in so far as it comprehends that U.S.V., standing alone, could not have violated Section 2 of the Sherman Act. We think it did. We [2231] think the evidence in this case discloses such a violation.

In that connection, if your Honor please, we have our Instruction No. 8, which is also taken from the tobacco company case, and which recognizes that a single corporation can violate Section 2, and we believe that is the proper instruction.

The Court: I have given you an exception to that.

Mr. Alioto: Yes, I understand, if your Honor please. I wanted to make this record clear.

With respect to Instruction No. 24, your Honor stated that the law recognizes the right of any trader or manufacturer in a private business freely to exercise his own independent discretion as to the parties with whom he will deal or refuse to deal.

We think under the decisions of the Supreme Court, if your Honor please, that the jury could well find that the United States Vanadium Corporation, standing alone, with 75 percent of the domestic oxide production and 90 percent of the control of the Colorado Plateau, must supply independents.

The Court: Why should it be?

Mr. Alioto: Because it constitutes a monopoly standing alone.

The Court: No.

Mr. Alioto: That is the reason for it.

The Court: Do you want an exception to that?

Mr. Alioto: Yes.

With respect to Instruction No. 26——

The Court: "The Court instructs you if the defendant acted on the basis of his own best judgment, no inference of conspiracy can be drawn

against that defendant, even though, after weighing all the circumstances, your personal opinion might be that the defendant's judgment was incorrect. You cannot find that the defendant entered into unlawful agreement or conspiracy because you disagree with their business judgment."

Mr. Alioto: My objection to that, if your Honor please, is that if business judgment, as has been testified in this case, led to the exclusion of competition and the prevention of competition, that that business judgment will not immunize these defendants. That is my objection.

The Court: Exception to 26.

Mr. Alioto: Your Honor may recall a few times the witness answered that "This was our sound business judgment."

I said, "What was the reason for the business judgment?"

He said, "To exclude competition."

And that is the evidence we are referring to.

The Court: All right.

Mr. Alioto: Your Honor, in connection with [2233] Instruction No. 32 on page 22, in connection with that instruction, your Honor gives an instruction which comes out of certain cases about a standardized product. We do not think there is any standardized product here, nor is there any standardized cost of production in connection with that product. We think the evidence is just to the contrary. That is a factual matter, however.

The Court: All right.

Mr. Alioto: We have already made our point, I

think, in connection with 36, page 25, the last paragraph of that instruction. In fact, the whole of that instruction implies that acting under an agency of the United States Government, it is impossible to violate the anti-trust laws.

The Court: Absolutely.

Mr. Alioto: Our view is, your Honor, for example, you will recall the testimony of Mr. Hill, which is uncontradicted in this record, that they had a discretion of fixing a price up to 50 cents. Your Honor will recall that.

Now, let us assume this happened: that they met with Mr. Bransome and they decided, "Look, we can fix a price up to 50 cents, but for our own purposes we will fix the price at 10 cents a pound"—to take an extreme example.

Even if they go out and pay 10 cents to the miners for Metals Reserve——

The Court: What was your evidence on that?

Mr. Alioto: Our evidence was there were two actual meetings.

The Court: Who testified to that?

Mr. Alioto: Burwell testified, and Mr. Bransome testified, and Mr. Kett testified to actual meetings with the competitors at which prices were discussed. Whether those resulted in agreement is a matter for the jury. But I am afraid if the jury hears this instruction and says, "Well, they agreed on prices they were going to charge for Metals Reserve," the jury can say that conduct is immunized because they are acting for the government.

The Court: There is a conflict in the testimony

as to who was present at the meeting and what took place.

Mr. Alioto: Yes, there is, if your Honor please. That is the point I am making.

The Court: You are objecting to the last part of 36?

Mr. Alioto: That is right.

Now, with respect to Instruction 37, we have a serious objection to this, if your Honor please. We do not believe the question is whether or not you can pick up a batch here or a batch there of vanadium oxide. We think the question is whether you can get a steady, dependable source of vanadium oxide upon which to mount a manufacturing operation. I will give an example of that. [2235]

There is some evidence in this case that the Blanding Mines was a supplier of Mr. Leir.

The Court: Not Blanding Mines. The testimony on Blanding Mines is pretty clear, the whole thing.

Mr. Alioto: I use that as an example in connection with 37, if your Honor please.

Then there is testimony that in January, 1942, the Blanding Mines stated on the advice or recommendation of their landlord, who was at that time negotiating with the Vanadium Corporation of America, they would not further supply Apex. Then they stopped supplying them. Later on, two years later, they made an offer to supply them with certain products.

The Court: Are you objecting to 37?

Mr. Alioto: Yes, if your Honor please. We think you ought to add the language, "some steady,

dependable source," instead of indicating perhaps flue dust on the high seas somewhere.

Mr. Neaher: May I note a correction in Instruction 38, page 26, in the fifth line there? The word "inter-action" should be "inaction." It was our mistake. It should have read "inaction,"—"Plaintiffs are not entitled to increase their damages through inaction," not "inter-action."

Mr. Alioto: Then with respect to Instruction 39, if your Honor please, the second paragraph of that Instruction 39, beginning: [2236]

"In this case plaintiff's claim for damages based upon the claim that they lost profits as a result of the alleged unlawful activities of the defendants"——

we also have the second claim that they paid more for goods actually purchased from them. That is perhaps the same thing.

Mr. Archer: I do not think that is in the complaint.

Mr. Alioto: I think if you take the last paragraph of the complaint it says something about the cost of their doing business having been increased. In any event, we are claiming something more than that.

The Court: You object to 39?

Mr. Alioto: Unless we understand loss of profits includes such loss of profits as are incurred by reason of higher costs.

The Court: It would include any loss.

Mr. Alioto: We object to Instruction 40. We

think the Ninth Circuit is out of harmony with the Radovich decision in the Supreme Court.

The Court: They have lots of company.

Mr. Alioto: This public injury doctrine is an interesting doctrine. It comes out of the Tenth Circuit. Our Courts went for it hook, line and sinker, and the Supreme Court has decided otherwise. Our opinion is a combination to get plaintiff is, itself, a violation of the anti-trust laws, [2237] because that necessarily affects the price structure. This is like the Moore case, if your Honor please, which was not overruled.

I think the gentlemen on the other side will probably join with me in respect to Instruction 41, that while it is true the complaint alleges there was damage over the period July, 1938, to July 15, 1949, we think the jury cannot award damage except for the period beginning October 10, 1939.

Mr. Neaher: We do agree with that, your Honor.

Mr. Alioto: I thought you might add that after the second sentence.

Mr. Neaher: I have some suggested language:

"However, in determining the amount of damage, if you reach this point, you may not allow plaintiffs' recovery of damages for any losses which may have been sustained by them prior to October 10, 1939."

Is that all right?

Mr. Alioto: That is all right.

The Court: We will insert that.

Mr. Alioto: We, of course, object to Instruction 42 on the same ground, that even pursuing a gov-

ernmental agency, it is possible to use agency powers for the purpose of assisting a violation of the anti-trust laws, and I think I cited the distinguished decision in the Fifth Circuit to your Honor on that. [2238]

The Court: I do not think I can go along with you on that. The Canadian Government does it, regardless of what the influences were that induced it to do it. It is the act of the Canadian Government. I do not think we would have any jurisdiction in that matter whatever.

Mr. Alioto: With respect to Instruction No. 43, we think there are some cases holding that the Court ought not to instruct the jury that the damages will be trebled. Since, as a matter of law, the trebling is automatic upon the judgment, there might be a disposition of the jurors——

The Court: I hesitated to put that in, but it is a part of the Act itself.

Mr. Alioto: There are cases both ways, if your Honor please.

The Court: Do you want that left out?

Mr. Alioto: That would be our request, that the jury not be told that the damages ought to be trebled. But perhaps the defendants have another view of that.

Mr. Neaher: That was your instruction. You proposed it, didn't you?

Mr. Alioto: Yes, but in one of the recent motion picture cases it says the Court ought not to tell the jury that the damages ought to be trebled. However, there is a difference of view, and my view is

that if you tell the jury that, they will start fixing their award based upon that. [2239]

Mr. Neaher: I think we would agree to leave it out. Stop with "the previous instructions given you." Leave out the rest.

Mr. Archer: Is there anything else in Instruction 43 that adds anything?

Mr. Alioto: Yes. I think we can put a period after "you":

"* * *, then you may assess the damage in accordance with the previous instructions given you."

a period there; and the attorneys' fees and costs of suit are matters for the Court.

The Court: I suppose there is no objection to the next one.

Mr. Alioto: I have no objection to the reference to "tedious" in so far as my activities are concerned, but a distinguished play actor like Mr. Holland may take exception that any of his performance was tedious.

Mr. Holland: Where is it?

Mr. Alioto: We have one basic objection, if your Honor please, with respect to the whole matter of damages. I think the jury should be told implicitly under the Bigelow decision and the Flintkote decision that once they have determined that there was an injurious impact of a violation, if they find a violation on the part of the defendants, that thereafter there is no rule of certainty, or even reasonable [2240] certainty, with respect to fixing the measurement of damages, and the Court allows

very liberal inferences to be taken from relevant data. I say the language of the Bigelow decision should be given.

The Court: Wouldn't that somewhat invade the area of speculation?

Mr. Alioto: I would suggest this, if your Honor please; it has been done in other cases, and we have done it pretty usually in our proposed instructions: Just take that instruction from the Bigelow case and give it directly and verbatim. No one can object to the language of Justice Stone, who is a pretty good stylist, too, like Mr. Neaher.

The Court: Yes. But somebody has to start reversing the Supreme Court.

Mr. Alioto: These jurors have been sitting, if your Honor please, in other types of cases where the law requires a more stringent application of the rule of certainty on damages, and they may have in their minds, and I think they ought to be told, that that rule of common law certainly does not apply to the measurement of damages under the anti-trust laws once they have determined there has been an injurious impact.

The Court: My opinion is the rule is under the Clayton Act, which requires even stronger evidence than it would in the ordinary case. You are alleging a conspiracy, [2241] and that you were damaged because of the acts of conspirators. Now, that can't be just inferred. There must be some basic evidence. And that is why I could not follow your requested instruction on that point.

Is there anything else?

Mr. Alioto: Finally, if your Honor please, we would respectfully except to the failure of the Court to give those instructions proposed by the plaintiff on these various subject matters that I have mentioned.

The Court: I would note now on your requested instructions my ruling on them, and they will be filed. That is a part of the record.

Mr. Alioto: In other words, the record will show our proposed instructions were rejected, modified, or given. And we would except to the failure to give those instructions which the Court marks are not given.

The Court: I will note an exception on each one of them.

Mr. Alioto: Thank you very much.

Mr. Holland: We have no exceptions, your Honor. We just have one question.

I know that Mr. Alioto's address is going to be interesting, and I want to listen to it with enjoyment and not interrupt it. I assume it is understood by everybody that they can't go into the period prior to July 1, 1938, in the [2242] argument.

Mr. Alioto: There is reason to believe that that is understood. It has been made very evident in this case. Actually, there are still a few references in that regard which I noted last night—discussions in 1945 about the MacQuigg Report. But since the report itself is not in evidence there is no point in mentioning it.

Mr. Holland: You are not going to waive it around.

The Court: How much time do you want in your argument? It is 10:30.

Mr. Alioto: Your Honor, earlier we talked about a couple of hours covering it. I think that general estimate is still correct, but I would like to feel that I am not going to be chopped off on the nose. I think you will find that two hours is a fairly good estimate, without actually holding us down.

The Court: The Court will not be unreasonable on that.

Mr. Holland: I think the Court wanted to know how long you will take on your opening.

Mr. Alioto: I would figure the opening will take approximately three-quarters of an hour total time.

The Court: Then you will have time this forenoon to make your opening?

Mr. Alioto: I think so. I think we should start [2243] now.

Mr. Holland: Do you think, in view of the fact that there are two defendants to argue, and then a rebuttal argument on behalf of the plaintiff, that maybe we ought to take a little less time than two hours for lunch?

Mr. Alioto: I have no objection.

Mr. Holland: Whatever the Court wants.

The Court: How is that?

Mr. Holland: I just wondered if we might take an hour, or an hour and a half, for lunch, instead of two hours, which would not require the jury to be kept here as late as five o'clock to hear the arguments. Whatever the Court wants.

The Court: I have been requested by one of the

judges to have lunch with him, and I do not know how good a lunch he will have. But we can do this: There is no reason to hurry this matter. I doubt if you can finish the argument.

Mr. Holland: I think we can, and I think the argument ought to be finished up so your Honor can instruct tomorrow. I think it would be very unfortunate, for example, if Mr. Alioto's rebuttal were left until tomorrow.

The Court: I have no objection to extending beyond four o'clock if necessary in order to finish your argument.

Mr. Holland: I believe I will be very short.

The Court: If we can finish the argument today, [2244] it would be satisfactory to have the instructions in the morning.

(Whereupon the Court, counsel for the respective parties and the court reporter entered the courtroom and the following proceedings were had within the presence and hearing of the jury:) [2245]

* * * * *

Instructions of the Court

The Court: Members of the jury, you have heard the evidence in this case and the argument of counsel, and it now becomes the duty of the Court to instruct you as to the law of the case. The jury is the sole and exclusive judge of the facts, but the Court is the judge of the law and it is your duty to accept the law as given you by the Court.

The plaintiffs in this action are Continental Ore

Company, a partnership composed of Henry J. Leir, Ernad D. Leir and Lina Schloss, and said parties as individuals and as partners. This partnership is a successor in interest to the Continental Ore Corporation which was incorporated under the laws of the State of New York on June 16, 1939. On May 5, 1942, these parties formed a partnership doing business as Continental Ore Company.

The defendants in this action are Union Carbide and Carbon Corporation, sometimes referred to as Union Carbide, a New York corporation. This corporation directly controls and operates the following subsidiary corporations which have certain specified functions and duties. They are called units of Union Carbide and Carbon Corporation.

United States Vanadium Corporation, sometimes referred to as U.S.V., is a New York corporation and is the unit of Union Carbide which acquires and produces vanadium-bearing ore and vanadium oxide. [2459]

Electro Metallurgical Company, sometimes referred to as Electromet, is a unit of Union Carbide in the alloys and metal division. From June 16, 1939, to February 23, 1949, Electromet was engaged in the production of ferro-vanadium and vanadium oxide, among other activities.

Electro Metallurgical Sales Corporation, sometimes referred to as Electromet Sales, is also a corporation in the alloy and metals group of Union Carbide. In March, 1949, it was merged into Union Carbide.

Electro Metallurgical Company of Canada, Limited, is a Canadian corporation.

Also named as a defendant is Vanadium Corporation of America, sometimes referred to as V.C.A., which is not owned by Union Carbide or a subsidiary or affiliate of it. It is a Delaware corporation with its principal place of business in New York City.

It is admitted, however, that no service was had upon Electro Metallurgical Company, Electro Metallurgical Sales Corporation and Electro Metallurgical Company of Canada, and that the only defendants served, and therefore involved in this case, are Union Carbide and Carbon Corporation, its subsidiary, United States Vanadium Corporation, and Vanadium Corporation of America.

This action is brought under the Sherman and Clayton Acts. The plaintiffs bring this case on the specific [2460] enactment of Congress known as Section 4 of the Clayton Act, which provides as follows:

"Any person who shall be injured in his business or property by reason of anything forbidden in the anti-trust laws may sue therefor in any District Court of the United States in the District in which the defendant resides or is found or has an agent, without respect to the amount in controversy and shall recover three-fold the damages by him sustained, and the cost of suit, including a reasonable attorney's fee."

It is alleged by plaintiffs that the defendants

have violated Sections 1 and 2 of the Sherman Act. Section 1 states in part as follows:

"Every contract, combination in the form of a trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is hereby declared to be illegal."

Section 2:

"Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be [2461] punished by a fine not exceeding $5,000, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court."

This action was brought to recover damages claimed to have been suffered by the plaintiffs by reason of alleged violation of the anti-trust laws of the United States. That is to say, plaintiffs contend that the defendants have violated the anti-trust laws and that plaintiffs were virtually eliminated from the vanadium industry by this alleged violation of law.

The gist of plaintiffs' complaint is that the part of their business concerned with vanadium products which they began in July, 1938, was damaged and finally virtually eliminated after 1944 as the alleged result of an alleged unlawful combination and con-

spiracy among defendants to control the vanadium industry. No. 4

Plaintiffs specify that the alleged acts and practices of the defendants which directly and proximately affected them were:

First, Apex Smelting Company of Chicago, Illinois, with which plaintiffs had an exclusive brokerage contract to sell its ferro-vanadium production, and under which operations commenced in the Spring of 1940, was compelled *the* cease the manufacture of ferro-vanadium in the Spring of 1942 because it was unable to operate profitably for the reason that it was [2462] unable to obtain vanadium oxide.

Two, the failure of plaintiffs' own operation on Long Island, New York, begun in August, 1942, because of the difficulty of securing raw materials which made it commercially impossible to operate profitably.

Third, Imperial Paper and Color Corporation of Glen Falls, New York, was forced to abandon in 1944 a contract made in that year with plaintiffs, under which plaintiffs were to act as sales agent for Imperial's entire output of ferro-vanadium and vanadium oxide. This is alleged to have been due to Imperial's and plaintiffs' inability to secure vanadium oxide or vanadium-bearing ores.

Fourth, the loss in 1943 of a Canadian customer, Atlas Steels, Limited, and plaintiffs' elimination from the Canadian market as a result of activities of Electro Metallurgical Company of Canada, then the agent of the Canadian Government in the war-

time allocation of ferro-vanadium to Canadian steel firms. Plaintiffs further allege that these activities embraced an agreement by defendants to divide the Canadian market among themselves and exclude plaintiffs.

Fifth, either plaintiffs, Climax Molybdenum Corporation, or both, were deterred in June, 1943, from concluding negotiations for Climax to manufacture ferro-vanadium for plaintiffs' account by threats of reprisal by an alleged official of defendant Union Carbide. [2463]

In their answers all of the defendants and each of them specifically denies the material allegations of plaintiffs' complaint which the Court has just summarized for you and each and every one of the claims made by the plaintiffs in their complaint.

For reasons deemed sufficient by the Court certain issues have been withdrawn from this case. You are instructed that in your deliberations you are to disregard any issues which have been withdrawn from your consideration and any comments of counsel about such issues.

Counsel, in arguing this case to you, have commented upon and argued upon the facts, as is their privilege and their duty. If you find any variance between the facts testified to by the witness or as shown by the documentary evidence, and what has been stated to you by counsel to be the facts, to the extent of such variance you must consider only the facts testified to by the witnesses or as shown by the documentary evidence.

At times throughout the trial the Court has been

called upon to pass on the question whether or not certain offered evidence might properly be admitted. With such rulings and the reasons for them you are not concerned. Whether offered evidence is admissible is purely a question of law, and from a ruling on such a question you are not to draw any inference as to what weight should be given the evidence or as [2464] to the credibility of a witness. In admitting evidence to which an objection is made the Court does not determine what weight should be given such evidence. As to any offer of evidence that was rejected by the Court you, of course, must not consider the same. As to any question to which an objection was sustained, you must not conjecture as to what the answer might have been or as to the reason for the objection.

When the Court has struck out evidence previously admitted, you are instructed that you are not to consider such evidence on any matter or for any purpose. When the Court has advised you that certain evidence is to be considered with relation to a particular defendant, you may not, of course, consider such evidence in relation to any other defendant.

You may not presume that the defendants, or any of them, are liable to plaintiffs simply because plaintiffs have sued them and filed a complaint alleging a conspiracy and the resulting damages. Neither may you presume that the defendants are not liable simply because they have in their answers denied the allegations made in plaintiffs' complaint.

The mere fact that plaintiffs have seen fit to join

a number of parties as defendants does not mean that all or any of them are liable. Plaintiffs' claim must be judged separately as to each defendant, and the position of each defendant should be judged on its own merits. This is especially true wherever the facts, circumstances or nature of the charges made or [2465] defenses asserted differ with regard to one defendant from those regarding all or some of the remaining defendants.

Each defendant is entitled to individual consideration of the evidence as applied to it to determine whether that particular defendant participated in any combination or conspiracy. No defendant should be prejudiced in the minds of the jurors merely because it has been named by the plaintiffs with others as a defendant in this case.

All of the parties defendant are corporations. In that connection the Court instructs you that a corporation is held to the same measure of liability as an individual. A corporation acts through its officers, directors and agents and may through one or more of them conspire with another corporation or with other individuals. Any act of an officer, director or agent of a corporation which is done within the scope of his duties or authority you may consider to be an act of the corporation itself. The parent corporation named as a defendant in the parent case is not chargeable with the acts of its subsidiary corporations solely because it is the parent corporation, but if you should find that the parent corporation used its ownership of the subsidiaries to cause such subsidiaries to act in its behalf,

then such parent corporation is liable for the resulting acts of its subsidiaries.

The Court now instructs you as to how you shall evaluate the testimony and the exhibits which have been [2466] tendered to you. It is basic to your consideration of the evidence that you bear firmly in mind that the plaintiffs have the burden of proof regarding all the issues which the Court has just outlined to you.

This means that on each of these issues plaintiffs must prove their contentions by what is called a preponderance of the evidence. The fair preponderance of the evidence does not necessarily mean the greater number of witnesses, but it means the greater weight of the evidence taken althogether.

It is said by the courts that the preponderance of the evidence means the evidence of greater convincing force. It means evidence which satisfies the conscience and brings conviction to an intelligent mind.

You must weigh the evidence as though it were placed on a scale. If the scale is weighted in favor of the plaintiffs, that is to say, if they have produced evidence of the greater convincing force, they have sustained their burden of proof. If it is weighted in favor of the defendants, or if it is evenly balanced, the plaintiffs have failed to sustain their burden. Unless you are satisfied that plaintiffs have met their burden of proof, you must return a verdict for the defendants.

You will in no event make any finding in this case which is based on speculation and conjecture

rather than competent evidence and the inferences reasonably to be drawn [2467] therefrom. It is not enough that there has been created in your minds some doubt or suspicion as to the conduct of the defendants. The plaintiffs must produce proof of such a nature as carries a conviction to your minds such as would influence you in the conduct of your own business or daily affairs. The character of the proof must be such as you would be willing to act upon and base a judgment upon in the disposal of important matters.

There are two kinds of evidence, direct and circumstantial. Direct evidence is that kind of evidence by which a fact is proved directly and without inference from other facts. Circumstantial evidence is that kind of evidence by which an inference of an unknown fact is drawn from the existence of known facts. In arriving at such verdict you are to consider all of the evidence, both direct and circumstantial.

Before a fact can be said to have been proved by circumstantial evidence alone it is necessary not only that the circumstances proved by the evidence shall reasonably give rise to an inference of such fact but also that no other equally reasonable inference may be drawn from the same circumstances. If two equally reasonable inferences can be drawn from circumstances proved by the evidence, one consistent with the fact sought to be proved and the other inconsistent therewith, you should not infer the fact sought to be proved from such circumstances alone. [2468]

In evaluating the testimony to decide whether the plaintiffs have sustained their burden of proof you will have to decide what credibility is to be attached to the testimony of the various witnesses. Whether you believe or do not believe the witnesses, and the weight to be attached to their testimony, is a matter for your sole and exclusive judgment.

In passing upon the credibility of the various witnesses it is your right to accept the whole or any part of their testimony or to discard or reject the whole or any part.

It is your over-all duty to scrutinize carefully the testimony given and in so doing you are to consider the following:

The circumstances under which the witness testified, his demeanor and manner on the witness stand; his intelligence; the extent to which his testimony is contradicted or corroborated by other evidence, if at all; the reasonableness or unreasonableness of his story; his apparent candor and fairness or the lack thereof; his interest or lack of interest, if any, in the result of the case, and in any other matter which reasonably sheds light upon his reliability as a witness.

There are several modes of impeaching or discrediting a witness. He may be impeached by evidence that he has made at other times statements inconsistent with his present testimony, by contradictory evidence, or by evidence that he is biased against or hostile toward the party against [2469] whom he testifies.

If it is shown that a witness has testified falsely

at one part of his testimony, you are at liberty to disregard the testimony of that witness entirely or in part.

The purpose of the anti-trust laws is to prevent and declare unlawful contracts, combinations and conspiracies designed to unduly restrain competition, or to monopolize or to unduly obstruct the free course of trade among the different States and with foreign countries. The restrictions imposed by this law were intended to frustrate unreasonable restraints, but not to prevent the use of reasonable means to protect interstate commerce from injurious or destructive practices or the promotion of competition upon a sound basis.

The plaintiffs' complaint is brought under the anti-trust laws. Insofar as this action is concerned, unless there has been agreement, combination or conspiracy among two or more persons, the anti-trust laws are not applicable. While the agreement, combination or conspiracy can be established by circumstantial evidence without direct proof, still when all is said and done, it is the true and ultimate fact which must prevail. Either there is some agreement, combination or conspiracy or there is not. Unless you find by a preponderance of the evidence that two or more defendants joined together in an agreement, combination or conspiracy by reason of which plaintiffs were injured, you must find for the defendants. [2470] Moreover, you cannot find against any defendant who was not a party to an agreement, combination or conspiracy by reason of which plaintiff were injured.

In this type of action the burden is upon the plaintiffs to prove the four basic elements of their claim:

First, they must prove that the defendants did in fact engage in an unlawful agreement or conspiracy.

Second, they must prove that overt acts were committed or performed by defendants pursuant to the unlawful agreement or conspiracy.

Third, they must prove that these acts injured them and were the direct, immediate and proximate cause of such injury.

Fourth, they must prove their damages.

An unlawful conspiracy is an agreement or understanding, express or implied, between two or more persons, to do an illegal act, or to do a legal act in an illegal manner. The essence of the conspiracy is the unlawful agreement or combination. A conspiracy is sometimes defined by the courts as a partnership in an illegal enterprise.

The term "monopolize" as used in Section 2 of the Sherman Act means the joint acquisition or maintenance by the members of the conspiracy formed for that purpose, or the power to control and dominate interstate trade and commerce in a commodity to such an extent that they are able, as a group, [2471] to exclude actual or potential competitors from the field, accompanied with the intention and purpose to exercise such power.

The phrase "attempt to monopolize" means the employment of methods, means and practices which would, if successful, accomplish monopolization, and

which, though falling short, nevertheless approach so close as to create a dangerous probability of it, which methods, means and practices are so employed by the members of and pursuant to a combination or conspiracy formed for the purpose of such accomplishment.

It is in no respect a violation of the law that a number of individuals or corporations, each acting for himself or itself, may own or control a large part, or even all, of their particular commodity, or all the business in a particular commodity.

An essential element of the illegal monopoly or monopolization is the existence of a combination or conspiracy to acquire and maintain the power to exclude competitors to a substantial extent.

In this case the claim is that the defendants entered into an agreement or combination to restrain and monopolize interstate and foreign trade in vanadium products. The burden is on the plaintiffs to establish the existence of such a conspiracy during the time plaintiffs were in business. If you find that the plaintiffs have not proved that there was [2472] such a conspiracy between the defendants, you should not consider any other issues in the case and you must return a verdict for the defendants.

The Continental Ore Company, in order to prove the existence of a conspiracy, need not show you an express or formal agreement to do so. You are allowed to infer the existence of a conspiracy from a course of dealings or through an exchange of words and from acts done. An unlawful conspir-

acy is often formed without simultaneous action or agreement on the part of the conspirators. Plaintiffs are seldom capable by direct testimony or evidence to prove a conspiracy. Therefore the law allows you as members of the jury to infer the existence of a conspiracy from things actually done, taking into consideration all of the facts and circumstances surrounding the conduct of the parties who are charged with the conspiracy. Proof of conspiracy, however, requires more than mere suspicion or conjecture, and there must be either direct proof of conspiracy or circumstantial evidence sufficiently strong to give rise to an inference of a conspiracy. It is sufficient, however, if the plaintiffs establish by a preponderance of the evidence or the greater weight of the evidence that two or more parties in any manner came to a mutual understanding to establish a common or unlawful design.

The law recognizes the right of any trader or manufacturer engaged in a private business freely to exercise [2473] his own judgment, his own independent discretion as to the parties with whom he will deal or refuse to deal.

If a prospective buyer indicates to a seller in advance that he would not buy at the seller's current price for similar sales, the seller's failure to offer goods at that price does not evidence a refusal to deal.

The Court instructs you that if any defendant acted on the basis of its own business judgment, no inference of conspiracy can be drawn against that

defendant, even though after weighing all of the circumstances your own personal opinion might be that the defendant's judgment was incorrect. You cannot find that the defendants entered into an unlawful agreement or conspiracy because you disagree with their business judgment.

It is unlawful per se for two or more competitors by agreement to fix prices, and any scheme or plan which fixes prices is unlawful under the anti-trust laws.

The existence of uniformity of prices between two or more competitors is a circumstance which the jury may consider in determining whether or not a conspiracy to fix prices existed.

You are instructed, however, that mere uniformity of price in the sale of commodities such as vanadium products are not in themselves sufficient evidence of an unlawful agreement or conspiracy, since uniformity in price may result [2474] solely from economic forces.

You may consider diversity of business practices among defendants as tending to show the absence of any unlawful agreement or conspiracy among them.

In reaching a conclusion as to the existence of the conspiracy as charged, and whether such defendant was a member, you must do so without regard to, and independent of, the acts and declarations and statements of the others.

The existence of the conspiracy cannot be established against any co-defendant by the acts or declarations of his alleged co-conspirators done or made

in his absence. The existence of the conspiracy and each defendant's connection with it must be established by independent proof based upon the reasonable inferences to be drawn from such defendant's own acts, his own declarations and his conduct.

The acts or statements of employees, agents or officers of a corporation can only be considered as acts or statements of that corporation if the evidence shows that the corporation through its shareholders, board of directors or authorized management officers vouched for part or all of an employee's, agent's or officer's statement.

It is not necessary to show that the statement was expressly vouched for. If authorized management officers direct that business be conducted and relies upon a particular intramural statement or report, and it is so conducted without [2475] reservation, the corporation has, by implication, adopted the statement or report, and is chargeable with it as an admission.

Evidence of acts and declaration of agents or employees of each of the defendants are not to be considered as evidence against other alleged members unless you find from circumstantial evidence, independent of such acts or declarations, that there was a conspiracy between the defendants.

If you find that any defendant adopted a business practice similar to that of another defendant, this is circumstantial evidence from which various inferences may be drawn. It is plaintiffs' contention that such similar business practice, if any you find,

is reasonably consistent only with unlawful agreement or conspiracy among defendants. It is defendants' contention that such similar business practices as you may find are either the result of the standardized nature of their products or of other economic factors confronting all defendants alike, or the result of the necessity upon each defendant to meet its competition, or the result of a belief independently arrived at by each defendant that such business practice was least expensive, most efficient or otherwise the best course for it to follow.

Plaintiffs have the burden of proof on this issue. You must find for the defendants unless you find that the inference suggested by plaintiffs is the only conclusion that can fairly and reasonably be drawn from the similarity of [2476] business practices of any of the defendants.

Not only must the plaintiffs prove a conspiracy in violation of the anti-trust laws, they must, in addition, show that the defendants committed or performed overt acts in furtherance of that unlawful conspiracy. Plaintiffs are private parties suing for damages. This is not a governmental suit. Private parties, unlike the Government, must prove more than a public wrong; they must prove that the public wrong is a private wrong to them. Private civil anti-trust actions are founded not upon the mere existence of a conspiracy, but upon injuries which result from the commission of forbidden overt acts by the conspirators. Therefore, no private action accrues from the mere agreement or conspiracy itself, because standing alone a conspir-

acy does not invade any private right. The plaintiffs must accordingly prove that in carrying out the conspiracy which they claimed existed, the defendants performed overt acts which have had a direct detrimental impact upon their business. The burden is on the plaintiffs to establish such overt acts.

In determining whether or not the plaintiffs have been injured and damaged by reason of the defendants' alleged unlawful conspiracy, you must determine whether or not plaintiffs have established with reasonable certainty that but for the conspiracy they would have had vanadium products to sell and would have sold them at a profit. [2477]

The damages which you may properly award to plaintiffs, if you find that plaintiffs have any right to recover damages, are limited to those actual damages which can be determined from the evidence, and do not include claimed damages which are merely speculative, remote or uncertain. Actual damages must be proved by facts from which their existence is logically inferable and cannot be supplied by conjecture.

In determining whether plaintiffs were injured or damaged as a result of the alleged unlawful activities of the defendants, you may consider the conditions of business prevailing at the time, including abnormal shortages in vanadium products caused by war, the effect of Government controls upon the maximum sale prices of vanadium products, Government purchasing policies for both vanadium ore and finished products, export embargoes,

and Government priority and allocation regulations upon domestic distribution.

The evidence discloses that immediately after the Pearl Harbor disaster in December, 1941, and the subsequent declaration of war by the United States against Japan and Germany, the United States Government, through its various agencies, ordered controls of all materials, including ores and metals which might be used in national defense. These orders gave the United States Government the power to control the production, sale and allocation of all such war materials and [2478] under such orders, priorities were instituted which were in effect from January, 1942, through February 29, 1944.

The Court instructs you that to the extent that any defendant acted on behalf of the Government of the United States or on behalf of one of its agencies or services, and in the scope of its duties in that regard, any such actions cannot be violations of the anti-trust laws. No such actions may form any proper part of plaintiffs' proof of conspiracy to monopolize or to restrain trade in the present case, nor may plaintiffs recover any damages which may have resulted from such actions.

If you find that plaintiffs stopped such business as they may have in ferro-vanadium or vanadium oxide at a time when they were able to buy vanadium oxide from any supplier, whether that supplier might have been either of the defendants or any other person or Government agency, at prices which would have enabled the plaintiffs to make a

profit, then you cannot find that plaintiffs lacked supplies of vanadium products to sell as a result of the activities of the defendants or any of them.

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You are instructed that plaintiffs are not entitled to recover an element of damages which could have been avoided through the exercise of reasonable efforts on their part. Plaintiffs are not entitled to increase their damages through inaction, but must take all reasonable steps to mitigate their [2479] damage and reduce their loss. In determining whether plaintiffs have discharged their duty to mitigate damages, you may consider whether reasonable men in plaintiffs' position would have accepted offers made to them either before or after they ceased their vanadium business to supply them with vanadium oxide at prices which would have permitted them to operate at a profit. You may consider whether reasonable men in plaintiffs' position could have made arrangements to process ferro-vanadium, and whether reasonable men in their position would have made additional efforts to find other suppliers of vanadium oxide or processors of ferro-vanadium.

If you find that by any of these means plaintiffs could reasonably have avoided the cessation of their Canadian business or could have recommended it at any later time, you must limit plaintiffs' damages to those losses which they would have suffered had they taken such advice.

If you find that plaintiffs suffered damage by reason of the alleged unlawful activities of the de-

fendants, you are to proceed to determine the amount of damages so caused to plaintiffs.

In this case plaintiffs' claim for damages is based upon the claim that they lost profits as a result of the alleged unlawful activities of the defendants. Plaintiffs must prove the amount of such lost profits, if any, only by evidence from which a just and reasonable inference can be [2480] drawn. You may not speculate as to the amount. Your determination must be based on evidence as to the persons from or through whom plaintiffs would probably have been able to obtain vanadium products, persons to whom plaintiffs would probably have been able to sell the vanadium products they so obtained, and the net profit which plaintiffs would probably have obtained on any such transactions.

Plaintiffs must satisfy you by a preponderance of the evidence that they would in fact have made net profits in addition to any net profits they actually made and they must furnish you with a fair and reasonably accurate standard for measuring just what that additional net profit would have been. If they have not furnished you with such a standard and if you have no means of ascertaining what their damages may be other than by speculation and guesswork, in such event you must return a verdict for the defendants.

In the event you find by a preponderance of the evidence that plaintiffs were injured by the acts of the defendants, you are instructed that this alone is not sufficient to permit you to award damages to the plaintiffs. Injury to the plaintiffs individu-

ally is not sufficient to warrant recovery by plaintiffs in a civil action under the anti-trust laws. Plaintiffs, in addition, must establish by a preponderance of the evidence that the acts which caused them injury were part of an illegal agreement or conspiracy which was reasonably [2481] calculated to prejudice the public interest by unduly restricting the free flow of interstate commerce. In other words, even if you should find that there were acts of the defendants directed at plaintiff alone, this is not sufficient. You must find that defendants were engaged in a conspiracy to injure the general public by restraining the free flow of interstate commerce, and that it was by reason of this general conspiracy that plaintiffs' business was destroyed.

Under plaintiffs' complaint it is alleged that the defendants' acts were in violation of the anti-trust laws and resulted in damage to the plaintiffs from July, 1938, to July 15, 1949.

You are instructed, however, that in determining the amount of damage, if you reach this point, you may not allow plaintiffs recovery of damages for any losses which may have been sustained by them prior to October 10, 1939.

Electro Metallurgical Company of Canada, Limited, a Canadian corporation, whose stock is owned by Union Carbide, is a corporation operating in Canada and during the period in controversy was designated by the Government of Canada as its purchasing and sales agent of war materials. You are instructed that any act of said corporation, per-

formed as an agent of the Canadian Government even though it resulted in injury to the plaintiffs, would not be a basis for liability on the part of Union Carbide, as said acts would be wholly [2482] within the jurisdiction of the Canadian Government.

If from a preponderance of the evidence you are satisfied that the defendants did enter into an unlawful conspiracy to restrain trade and as a direct and proximate result of said acts of the defendants, that plaintiffs have suffered damage, then you may assess the damage in accordance with the provisions of the instructions given you.

You have heard during the course of this trial references to a Government case against the defendants in Denver, Colorado. The Court instructs you that in your deliberations about this case you are to decide this case on its own merits without regard to the Denver case.

The Court realizes that this has been a long and somewhat tedious case so far as the jury is concerned, but in the foregoing instructions the Court has limited the instructions to questions of law, and it is not its purpose or intention to comment in any manner upon the evidence. You have heard the evidence and you are the sole judges of the evidence and the Court is content to leave that matter for your consideration.

The Court apologizes for the length of these instructions, but as you may observe, they are intended to state definite propositions of law. Both plaintiffs and the defendants have submitted re-

quested instructions, and while many of them may appear repetitious, yet in the Court's [2483] judgment they are not conflicting and the foregoing instructions have been given to you in order that the theories of the law of both plaintiffs and defendants may be presented to the jury.

The instructions of the Court constitute the law of this case which are to govern your deliberations. You must be governed by them as a whole and are not to single out one instruction to the exclusion of all the others.

When you retire you will select one of your number as foreman, who will preside over your deliberations and sign the verdict when you have arrived at a verdict. It is necessary for you all to agree as there are no majority verdicts in this court.

Forms of verdict will be submitted.

Now, in this case it was anticipated that it would take some time to try it, and frequently during trials some member of the jury may be incapacitated and have to be excused, but in order that we may have a full jury of twelve we have selected an additional juror to sit during the trial of this case, so that that juror may take the place of anyone who might be disqualified to act. At this time the last juror selected may be excused. The jury may retire to deliberate on your verdict.

(Thereupon at 2:57 P.M. the jury retired from the courtroom, and in their absence the following occurred:) [2484]

Mr. Alioto: Before the Court leaves I wonder if I can take up one matter with the Court. In

going over the instructions I thought there were others that were excepted to that do not appear on the list as instructions to which we took exception, and I think the reason for it is that in making my objections I made them in connection with certain propositions of law, and those propositions of law may have appeared in one, two or three instructions and I may have mentioned them in only one. But in addition to the objections to the instructions noted on the copy which I have received, I wish to note an exception to Instruction No. 8 insofar as it does not incorporate in its last paragraph the rule with respect to declarations of co-conspirators.

I also wish to note an exception to No. 10 for the same reason.

I also wish to note an exception to Instruction No. 19 as well as an exception to No. 20. These cover the general propositions of law that were mentioned in chambers the other day to the effect that it is our belief that the Union Carbide defendants, or that the Union Carbide alone, or that U.S.V. alone can be found to have violated Section 2 of the anti-trust laws, and that the Vanadium Corporation of America alone can be found to have violated Section 2 of the anti-trust laws with respect to ferro-vanadium.

The same thing would apply to the second to the [2485] last paragraph of Instruction No. 22. I take it where the Court has noted an exception allowed plaintiffs, it covers the entire instruction and not just the paragraph at which the "exception" appears?

The Court: Do you reserve an exception to Instruction 22?

Mr. Alioto: Yes. The "exception" is up at the top. That covers all the paragraphs, I take it. Thank you.

The Court: About these others——

Mr. Alioto: There are a few others and I will be finished in just a moment, if your Honor please. We would also respectfully except to the giving of Instruction No. 30 as being too extreme in connection with the adoption by the corporation.

We respectfully except to the giving of Instruction No. 33.

We except to Instruction No. 34, Instruction No. 35, we have already objected to Instruction No. 36, we would except to Instruction No. 38, Instruction 39—that already appears on 39—we except to Instruction No. 38 and we respectfully except to Instruction No. 42.

We would respectfully except to the instruction in which the Court tells the jury that in its view there was no conflict between the instructions of the plaintiff, the proposed instructions of the plaintiff and the defendants. We [2486] believe on some issues that there was rather extreme conflict.

The Court: No, I didn't mean that. I meant the ones that I have given.

Mr. Alioto: I thought it may carry the implication that in those proposals there was no conflict. Now, I take it it will be deemed, gentlemen, that the exceptions to the instructions again were taken

before the jury was sent to its room for deliberations?

Mr. Neaher: That is agreeable.

Mr. Archer: That is agreeable.

The Court: Is there any objection on the part of the plaintiff's attorney to allow an exception to these instructions as suggested?

Mr. Archer: No, your Honor.

Mr. Neaher: No, your Honor.

The Court: They will be noted.

Mr. Alioto: One final matter, if your Honor please. I take it before the exhibits are sent in to the jury room there will be a stipulation of counsel that the exhibits are in such form that there is no objection to their being sent in?

The Court: If they call for them.

Mr. Alioto: Yes. But I have in mind there are a few exhibits, if your Honor please, which were admitted that contain statistical data, for example for the years 1933 to [2487] 1945, and the Court said, "We will admit that only insofar as it pertains to the years 1938 to 1945." I think if those exhibits are called they can be physically covered.

The Court: If they are called for. It isn't my custom to send the exhibits to the jury room unless the jury calls for some specific exhibit. What is your practice here?

Mr. Archer: That is satisfactory, your Honor.

Mr. Neaher: That is satisfactory.

Mr. Alioto: We think the practice is probably to the contrary.

Mr. Archer: If you want to get these exhibits

fixed up—the exhibits are not in shape to go to the jury right now.

Mr. Alioto: There are just a few. They can be covered in a minute or so. That is no insurmountable problem.

The Court: If they call for them we can take it up.

Mr. Archer: With the Court's permission, I will erase Mr. Alioto's argument from the blackboard with the idea the jury may be back here on some question. Is that satisfactory?

The Court: What is that?

Mr. Archer: I think I ought to erase the blackboard.

Mr. Alioto: I do not know why that should be [2488] done, if your Honor please.

Mr. Archer: It is not evidence in the case. They may be back on some other question.

Mr. Alioto: That would involve a trespass upon private property.

The Court: What is your custom about holding the jury later than four o'clock?

The Clerk: They hold them and send them out to dinner, and some of the judges let them deliberate until a reasonable hour. Some of the judges will send them home in a civil matter.

The Court: What is your attitude on that? I have a good deal of sympathy for a jury, and I think this jury has endured quite a little punishment here. Is there any reason that they could not be excused at the usual time to return tomorrow morning and resume their deliberations?

Mr. Holland: No, I think they would like to get a dinner out of it, don't they?

Mr. Neaher: They may also prefer to work on rather than to come back tomorrow.

Mr. Archer: Whatever their desire would be would be satisfactory to us, or the Court's desire would be satisfactory to us.

Mr. Holland: After a certain time would your Honor have them return a sealed verdict, go home and come back [2489] the next day?

Mr. Alioto: Return a sealed verdict?

Mr. Archer: I think Mr. Holland was thinking that if we kept them late, that they could return a sealed verdict so we don't have to get everybody out here.

Mr. Alioto: I think our practice here, and there is much to commend it, is to be here at the time the jury returns its verdict.

The Court: Suppose we do this. I can remain in my chambers until five o'clock, and if they have not arrived at a verdict then, they may be excused until tomorrow morning.

Mr. Archer: That is satisfactory.

Mr. Alioto: That is satisfactory.

Mr. Neaher: That is satisfactory.

(At 3:35 p.m. approximately counsel for the respective parties were called into the Court's chambers and the following occurred:)

Mr. Alioto: If your Honor please, your Honor has been good enough to hear us in chambers in connection with the request made by the plaintiff. It has come to our attention the jury has sent out a

request for some of the exhibits, the request being, as we understand it, the requirements contract tendered to the plaintiff by the defendant Union Carbide. I do not know what your Honor's practice is with respect to this matter, but I would respectfully request, first of all, that [2490] the request from the jury be read into the record, and therefore I would respectfully move the Court that all of the evidence which has been, all the documentary evidence which has been admitted in this case be sent in to the jury so that they would have all of that evidence before them rather than just one isolated piece of evidence that went in. We think it prejudicial that the jury not have before it all the documentary evidence that has been admitted.

The Court: It is the ruling of the Court that the jury is entitled to any portion of the exhibits that they request. This is a specific request and it has been complied with. The objection will be overruled.

Mr. Archer: I would like to point out for the record, too, that there are a great many of those statistical exhibits which were going to be corrected or have part of them eliminated, and on some of those I know that has not been done as yet, so we couldn't send them in right now.

Mr. Alioto: Is that the specific basis on which the objection is being ruled upon? I do not want anything collateral that we can fix up in five minutes given as the reason for not sending in the exhibits.

The Court: The Court will not send in any exhibits except those asked for by the jury.

Mr. Alioto: And not because of any reasons suggested by Mr. Archer which can be remedied in five minutes, [2491] is that correct?

Mr. Archer: I do not think it can be remedied in five minutes. There were some of those accounting exhibits that had to have things written on them. It has not been done yet.

The Court: I think it would simply add confusion to confusion to send all the exhibits in there.

Mr. Alioto: Yes, but we have a confused record at the moment now because Mr. Archer has introduced a ground of objection and I do not feel I can leave it on that ground.

Mr. Holland: I think the Court ruled before Mr. Archer said anything.

Mr. Alioto: Yes, but now we have a confused record. It is not clear, in my view. I suggest we send in the exhibits now and I will physically——

The Court: Which exhibits?

Mr. Alioto: All of the exhibits, and I will physically take off those portions of the statistical exhibits before 1938.

The Court: The Court is not going to do that.

Mr. Alioto: And not for the reason that the exhibits are not in shape to go in?

The Court: No. I am just stating that any exhibit the jury requests will be supplied and they will not be sent any exhibits that they have not requested them. [2492]

Mr. Neaher: I think I would like to point out during the course of this trial practically every exhibit in evidence was read to the jury.

The Court: Not once but many times.

Mr. Alioto: We have one further request, if your Honor please, and that is that any message from the jury be physically incorporated into the record here so we know exactly what it is the jury requested.

Mr. Neaher: We have no objection to that.

The Court: I see no objection to that.

Mr. Alioto: Who has the slip of paper?

Mr. Holland: The Clerk.

The Court: Do you have that request?

The Secretary to the Court: This is another one. The request I sent back in.

The Court: "May we see the USV contracts Mr. Archer referred to yesterday afternoon." What contracts were those, the USV contracts?

Mr. Archer: Oh, I think they are contracts to produce uranium and vanadium for the United States Government.

Mr. Alioto: You see, that is the problem here and I think this demonstrates it. I think they have reference to this alleged contract to supply in 1939, which are contracts running to a man named Poliakoft.

The Court: "May we see the USV contracts Mr. [2493] Archer referred to yesterday afternoon." Now, which contracts did you refer to?

Mr. Archer: U.S.V. has no contracts with Poliakoff. The only U.S.V. contracts referred to that I can think of are the contracts we had with Uravan in Grand Junction and Durango for the production of vanadium oxide.

Mr. Holland: Why don't we ask the jury as to that?

Mr. Alioto: I think in view of this request all the exhibits should be sent in.

The Court: I am not going to do that at all. I wouldn't think of it.

Mr. Holland: Perhaps the jury could be asked to specify a little more clearly with reference to subject matter so they could be identified.

The Court: Ask the foreman of the jury if he can be a little more specific in stating just what he wants.

Mr. Alioto: I take it before the second message came in the Court was asking for the first message. Who has that?

Mr. Neaher: I think this young lady sent it back in.

The Secretary to the Court: I sent it back in to the foreman with the contract.

The Clerk: This is the first note, your Honor. (Handing document to the Court.) [2494]

The Crier: The foreman says he thinks they have what they want in there.

Mr. Alioto: That is the only thing we want to do, your Honor, is to make the request and to request that all messages from the jury be physically attached to the record as a part of the record and marked by the shorthand reporter to identify the messages. Nothing further at this time.

Mr. Holland: No objection to that.

(The messages received from the jury were as follows: First message: "May we see USV

requirement contracts offered to Continental Ore." Second message: "Does control of 95% of the sources of supply by defendants of itself constitute evidence of restraint of trade in violation of the law?")

(At 4:23 p.m. the jury assembled in the courtroom and took their places in the jury box. In the presence of the Court and the counsel for the respective parties the following occurred:)

The Court: Mr. Foreman, you have asked for certain information. The question you asked is this: "Does control of 95% of the sources of supply by the defendants of itself constitute evidence of restraint of trade in violation of the law?" [2495]

Now, the instruction that covers conspiracy and monopolization and attempt to monopolize is as follows. I will read you Instruction No. 22:

"An unlawful conspiracy is an agreement or understanding, express or implied, between two or more persons, to do an illegal act, or to do a legal act in an illegal manner. The essence of the conspiracy is the unlawful agreement or combination. A conspiracy is sometimes defined by the courts as a partnership in an illegal enterprise."

The term "monopolize" as used in Section 2 of the Sherman Act means the joint acquisition or maintenance by the members of the conspiracy formed for that purpose, of the power to control and dominate interstate trade and commerce in a commodity to such an extent that they are able, as a group, to exclude actual or potential competitors

from the field, accompanied with the intention and purpose to exercise such power.

The phrase "attempt to monopolize" means the employment of methods, means and practices which would, if successful, accomplish monopolization, and which, though falling short, nevertheless approach so close as to create a dangerous probability of it, which methods, means and practices are so employed by the members of and pursuant to a combination or conspiracy formed for the purpose of such accomplishment. [2496]

It is in no respect a violation of the law that a number of individuals or corporations, each voting for himself or itself, may own or control a large part, or even all, of a particular commodity, or all the business in a particular commodity.

An essential element of the illegal monopoly or monopolization is the existence of a combination or conspiracy to acquire and maintain the power to exclude competitors to a substantial extent.

In this case the claim is that the defendants entered into an agreement or combination to restrain and monopolize interstate and foreign trade in vanadium products. The burden is on the plaintiffs to establish the existence of such conspiracy during the time plaintiffs were in business. If you find that the plaintiffs have not proved that there was such a conspiracy between the defendants, you should not consider any other issue in the case and you must return a verdict for the defendants.

As the Court has instructed you, there are certain facts which you may take into consideration. That

was one of the reasons why this case was submitted to the jury, and the fact that one of the defendants or two of them own 95% of the sources of supply that would—that is a matter that you can take into consideration, but that within itself is not a conspiracy. It is an indication or evidence that you may take [2497] into consideration in determining whether or not there was a conspiracy. Does that answer your question?

The Foreman: Thank you, your Honor.

The Court: Anything further now that the jury would like to know?

(No juror indicated a desire to make a further statement.)

The Court: You may retire.

(Thereupon at 4:25 p.m. the jury retired from the courtroom to deliberate further upon its verdict.)

(The following proceedings took place immediately after the jury left the courtroom:)

Mr. Alioto: If your Honor please, the plaintiff would respectfully except to the instruction given by the Court to the jury. Of course, we think it plain, particularly from United States against the Aluminum Company of America, 144 fed. 2d, that if 95% is acquired as part of a plan to seek control, that that in itself is a violation of Section 2 of the Sherman Act.

The Court: The case you cited to the Court was the tobacco case in 348 U.S.

Mr. Alioto: Yes, and even under that case.

The Court: This instruction to which you have

excepted was the instruction in that case and it was approved by the Supreme Court. [2498]

Mr. Alioto: Yes, if your Honor please, but now this jury has asked a specific question saying does control of 95% of the raw materials in itself constitute evidence of a violation of the law. I think the jury should be plainly told if 95% was acquired pursuant to a plan to control, that that standing alone is a violation of the anti-trust laws.

The Court: That is exactly what the Court told them.

Mr. Alioto: We do not think so. Furthermore we would respectfully except to the giving of the instruction in isolation from the other instructions, which tended to unduly emphasize this instruction, and we would like the Court to note an exception.

The Court: Exception is allowed. Anything further, gentlemen? We will stand recessed.

(At 4:50 p.m. the jury returned to the courtroom, and in their presence, the presence of the Court and counsel for the respective parties, the following took place:)

The Court: Have you arrived at a verdict?

The Foreman: We have, your Honor.

The Court: Pass it to the Clerk, please.

(A sheet of paper was handed to the Clerk.)

The Court: Read the verdict, Mr. Clerk.

The Clerk: Ladies and gentlemen, listen to your verdict as you have rendered it. Omitting the title of the [2499] case, verdict, "We the jury find in favor of the defendants." Signed "John S. Dodds, Jr., Foreman."

The Court: Is this your verdict, one and all?

The Jury: Yes.

The Court: The Court concurs in your verdict. Is there anything further?

Mr. Alioto: Yes, if your Honor please. We respectfully move that the Court poll the jury as to this verdict.

The Court: All right. Is this your verdict?

(Each of the twelve jurors responded it was his or her verdict.)

The Court: Anything further, gentlemen?

Mr. Archer: Would the Court desire a formal judgment prepared for entry and filing?

Mr. Alioto: I was going to inquire about the same thing, whether the Court was going to enter a judgment on the verdict, on the basis of the minute order, or what it proposed to do. We have a notice of appeal to file, and I was just wondering what the practice of the Court would be.

The Court: I think it would be well for you to file one.

Mr. Archer: I will prepare it and have it for your Honor tomorrow morning.

Mr. Alioto: The judgment then will not be entered [2500] until tomorrow morning, is that correct?

The Court: Very well. The Court desires to express his appreciation of the very careful attention this jury has given to this case. It has been a hard case to try. It is difficult to consider all the facts that have been submitted, and the Court has admired the patience with which you have done your

work. The jury will be excused from further consideration of this case and you can report to the Clerk.

(The jury thereupon retired from the courtroom and the following took place in their absence:)

The Court: I assume, of course, that you will make a motion for a new trial. It isn't necessary.

Mr. Alioto: I am sorry. I didn't hear the Court's remarks. There was a little noise.

The Court: Do you desire to file a motion for a new trial?

Mr. Alioto: We want to look into that problem, if your Honor please. At the time the judgment is entered we would like an opportunity to do that. Realistically I think we have made the points that we desire to make throughout the trial, and we may conclude it would be academic to file a motion. On the other hand, in view of the development of the question as asked by the juror, the last question, about the 95% monopolization and our somewhat strong views that that is specifically covered by the Alcoa case, among others, we may [2501] want to argue that point before your Honor. If in advance we know it is not going to do any good to argue the point, we would not want to inconvenience the Court, frankly, because the Court is here on a visiting basis.

The Court: What I have in mind is, whatever you want to do, anything that it is necessary for the Court to do in this case, I would like to do it by Monday of next week, because my reservations

are for Tuesday morning and I will leave Tuesday morning. Then we might have this agreement, that any orders that are necessary for this Court to make it can make in its home district.

Mr. Archer: That is satisfactory.

Mr. Alioto: We have no objection to that, if your Honor please. Let me ask whether the Court, say, could reserve this Friday for argument. In other words, as I understand it, the Court wants it done before Monday.

The Court: No, Friday is all right. I would prefer Friday.

Mr. Holland: I was hoping to leave tomorrow, Judge. Is there any possibility of that? I have been here a month now.

The Court: This is a pretty good place to stay.

Mr. Archer: I think we ought to convenience the Court, as long as the Court is here; we ought to meet his convenience on that. [2502]

The Court: We may find it necessary to make a return trip here on this case.

Mr. Alioto: I do not think that will be necessary. As far as we are concerned, we are prepared to get whatever motions we want to bring before the Court, we will be prepared to bring them before the Court on Friday. Of course, that would require presumably the defendants to waive the matter of notice.

Mr. Archer: That is satisfactory.

Mr. Alioto: It will require them to waive their having any points and authorities for a new trial

served on them any time before Thursday evening or Friday morning.

Mr. Archer: I think we have covered all the law points in the briefs we have filed.

The Court: I think in the Federal court a motion for a new trial is not absolutely necessary. Of course, in the State courts in our State it is. They appeal from that. But you appeal from the verdict of the jury in this case. If you want to file a motion for a new trial, it might be well as part of your record.

Mr. Alioto: That is all I have in mind, if your Honor please. I want a chance to think about it, particularly in the light of the last instruction given by the Court, which obviously brought about a verdict in a hurry, and we think we would like to bring certain authorities before your Honor on [2503] that. We think the simple answer to that question should have been "Yes," and I would like to present certain authorities to the Court on that point. If, on the other hand, it appears that it is not going to make too much difference with the Court, or if the Court already has an opinion on that, an opinion that is not likely to be changed, I have no desire to inconvenience anybody in staying here. It may be that tomorrow we will decide not to file a motion for a new trial but to file our appeal instead of a motion for a new trial. We will decide that sometime within the next twenty-four hours, if your Honor please, and then take it up with counsel for the defendants so they won't be inconvenienced so far as we are concerned.

Mr. Archer: Anything Mr. Alioto decides to do will be satisfactory with me.

The Court: Whatever you gentlemen agree on. We will recess, then, subject to call. [2504]

[Endorsed]: Filed August 8, 1958.

[Endorsed]: No. 16149. United States Court of Appeals for the Ninth Circuit. Continental Ore Company, a Partnership, and Henry J. Leir, Erna D. Leir, Lina Schloss, as Individuals and as partners under the trade name and style of Continental Ore Company, Appellants, vs. Union Carbide and Carbon Corporation; United States Vanadium Corporation; Electro Metallurgical Company; Electra Metallurgical Sales Corporation; Electro Metallurgical Company of Canada, Limited; Vanadium Corporation of America, Appellees. Transcript of Record. Appeal from the United States District Court for the Northern District of California, Southern Division.

Filed and docketed: August 21, 1958.

/s/ PAUL P. O'BRIEN,
Clerk of the United States Court of Appeals for the Ninth Circuit.

United States Court of Appeals
for the Ninth Circuit

No. 16149

CONTINENTAL ORE COMPANY, et al,
Appellants,

vs.

UNION CARBIDE AND CARBON
CORPORATION, et al,
Appellees.

STIPULATION AND ORDER RE EXHIBITS

It is hereby stipulated by and between the parties hereto, by and through their respective attorneys of record, that all exhibits designated by the parties, or any of them, as part of the record on appeal may be considered by this Court in their original form and need not be printed in the record.

Dated: August 26, 1958.

JOSEPH L. ALIOTO,
MAXWELL KEITH,
/s/ By JOSEPH L. ALIOTO,
Attorneys for Appellants.

MORRISON, FOERSTER,
HOLLOWAY, SHUMAN
& CLARK,
/s/ By RICHARD J. ARCHER,
Attorneys for Union Carbide & Carbon and U. S.
Vanadium Corporation.

PILLSBURY, MADISON
& SUTRO,
/s/ By JOHN A. SUTRO,
Attorneys for Vanadium Corp. of America.

[Endorsed]: Filed September 2, 1958. Paul P. O'Brien, Clerk.

[Title of Court of Appeals and Cause.]

APPELLANTS' STATEMENT OF POINTS ON APPEAL AND DESIGNATION OF THE RECORD FOR PRINTING

Pursuant to Rule 17 (6) of the Rules of the above-entitled Court, the following is a concise statement of the points on which appellants intend to rely on their appeal herein:

I. The Court erroneously excluded evidence offered to prove that the appellees violated the Sherman Act.

1. It excluded evidence shortly predating July, 1938 which tended directly and positively to prove the existence of a domestic cartel between the appellees, and the nature and extent of their agreement in violation of the Sherman Act which was in existence during the statutory period of October, 1939 to July, 1948.

2. It excluded evidence that the appellees destroyed and then appropriated appellants' business in the Canadian market.

3. It excluded evidence that agents of the appellee Union Carbide told appellants that they

should not be in the vanadium industry and that appellants should not undertake to do business with the Climax Molybdenum Company, although such matters were expressly set forth in appellants' complaint.

4. It excluded evidence that the appellee Union Carbide's officer secreted documents which the officers believed reflected violations of the Sherman Act.

5. It excluded evidence of conversations with the chief managing agents of Union Carbide in 1939 admitting the appellees' violation of the Sherman Act and setting forth the relationship between the appellees' violations of the Sherman Act in the vanadium industry and their violations of the Sherman Act in low carbon ferrochrome.

6. It excluded evidence disclosing each appellee's cost of doing business and its profits.

7. It excluded evidence of the suppression of patents by appellee Vanadium Corporation of America.

8. It excluded evidence of prior consistent statements of an ex-officer of Union Carbide although his bias and interest were directly attacked by the appellees.

9. It excluded the business records of the appellants and their damage calculations.

10. It excluded the expert opinion of witnesses for appellants on the subject of damages.

II. The Court erred in over-examining appellants' witnesses, commenting on the evidence and

interrupting examination and cross-examination with statements and comments and interrogation which were prejudicial to appellants' case.

III. The Court erred in its instructions to the jury as follows:

1. That it is not a violation of the Sherman Act that one or more firms may own or control all of a particular product or all the business in a particular commodity. (Tr. 2472)

2. That the law recognizes the right of any trader or manufacturer engaged in a private business to refuse to deal. (Tr. 2473-2474)

3. That if any defendant acted on the basis of its own business judgment, no inference of conspiracy can be drawn against that defendant, even though after weighing all of the circumstances the juror's personal opinion might be that the defendant's judgment was incorrect. (Tr. 2474)

4. That the defendants were entitled to a verdict if the jury decided that the evidence of similar business practices did not lead to the conclusion that there was a conspiracy between the defendants. (Tr. 2476-2477)

5. That the plaintiffs had to prove the existence of a public wrong. (Tr. 2477)

6. That the acts of any defendant while acting as agent for the Government of the United States or Canada could not form any proof of conspiracy to monopolize or restrain trade. (Tr. 2479, 2482-2483)

7. That the plaintiffs could not recover damages

if they stopped their business at a time when they could buy vanadium from any supplier. (Tr. 2479)

8. That the plaintiffs had to prove damages based on evidence of actual suppliers, actual sales and net profits. (Tr. 2481)

9. That the instructions of the Court considered as a whole failed to clearly inform the jury that an agreement to acquire control of an industry, together with the acquisition of control, was in itself a violation of the Sherman Act; that individual refusals to deal are neither absolute nor exempt from regulations; that the jury should consider all the evidence in determining all of the issues involved; that the plaintiffs did not have to prove damages with certainty; and that the plaintiffs were not under a burden to return to the industry if they should find that the defendants excluded them and controlled the industry.

IV. The Court erred in refusing the following instructions of appellants:

1. That each individual appellee could be found to have violated the Sherman Act; that Union Carbide could be found to have violated the Sherman Act by the finding of a conspiracy between it and its affiliates (Pltf's Instructions Nos. 5, 8, 9 and 12); and that United States Vanadium Corporation could be, in itself, in violation of the Sherman Act. (Tr. 2232)

2. That the existence of over 90 percent control of an industry by two firms who have conspired together is sufficient of itself to violate the Sherman Act. (Pltf's Instruction No. 7, Tr. 2498-2499.)

3. That if 95 percent of the vanadium industry was acquired by defendants as the result of a plan to monopolize, the defendants violated Section 2 of the Sherman Act. (Tr. 2498)

4. That an agreement to refuse to deal is a per se violation of the antitrust laws. (Pltf's Instruction No. 10.)

5. That the antitrust laws contemplate that the wrongdoer shall bear the risk of uncertainty which his own wrong has created in accordance with the Supreme Court opinion in Bigelow vs. R.K.O., 327 U.S. 359. (Pltf's Instructions Nos. 15, 16.)

6. That the jury could award damages based on the increased costs occasioned by a price-fixing combination. (Pltf's Instruction Nos. 17, 24.)

7. That the jury should consider all the relevant data and estimates of damages offered by expert witnesses in arriving at an award of damages. (Pltf's Instruction No. 19.)

8. That the jury could consider the success of appellant in other lines of businesses in arriving at an award of damages. (Pltf's Instruction No. 21.)

9. That the jury should not consider the wealth of the parties in arriving at their determination. (Pltf's Instruction No. 22.)

10. That the jury should consider whether an appellee used its power as an agent of the United States for the purpose of carrying out or assisting

any combination or conspiracy to restrain trade or monopolize trade in the vanadium industry, and the fact that an appellee might have been an agent of a governmental department does not immunize its conduct from such considerations. (Pltf's Instruction No. 23.)

V. The Court erred in allowing counsel for the Vanadium Corporation of America to inform the jury that the appellees were acquitted by a jury in a prior government criminal action in his opening statement.

In support of the above-mentioned points on appeal, appellant herein designates the following for printing:

1. The Complaint;

2. The Answer of defendant Union Carbide and Carbon Corporation, et al.;

3. The Answer of defendant Vanadium Corporation of America;

4. Plaintiffs' Proposed Instructions to the Jury;

5. Each defendant's Proposed Instructions to the Jury;

6. The verdict for the defendants;

7. The judgment for the defendants;

8. Plaintiffs' Notice of Appeal;

9. This Statement of Points on Appeal and Designation.

10. The following portions of the trial transcript:

* * * * *

Dated: August 29, 1958.

JOSEPH L. ALIOTO,
MAXWELL KEITH,
/s/ By JOSEPH L. ALIOTO,
Attorneys for Appellants,
CADWALADER, WICKERSHAM & TAFT,
Of Counsel.

Acknowledgment of Service Attached.

[Endorsed]: Filed September 8, 1958. Paul P. O'Brien, Clerk.

[Title of Court of Appeals and Cause.]

DESIGNATION BY APPELLEES UNION CARBIDE CORPORATION (SUED HEREIN AS UNION CARBIDE AND CARBON CORPORATION), UNITED STATES VANADIUM CORPORATION, AND VANADIUM CORPORATION OF AMERICA OF PORTIONS OF RECORD, PROCEEDINGS, AND EVIDENCE TO BE PRINTED

To the Clerk of the United States Court of Appeals for the Ninth Circuit:

Appellees Union Carbide Corporation (sued herein as Union Carbide and Carbon Corporation), United States Vanadium Corporation and Vana-

dium Corporation of America hereby designate the following additional parts of the record, proceedings, and evidence to be printed:

1. The following portions of the Reporter's Transcript of the trial:

* * * * *

2. The following Plaintiffs' Exhibits: 11, 12, 22, 23, 34, 35 (only the following extracts: page 1, first paragraph, page 3, signatures on page 7), 39, 45, 55, 55-A, 56, 68, 69, 70, 71, 72, 73, 74 (page 1, to and including paragraph 7 on page 5, page 8), 75, 76, 79, 118, 122, 127, 129, 131, 149, 150, 157, 158, 159, 160, 161, 163.

3. The following exhibits introduced by Union Carbide and Carbon Corporation and United States Vanadium Corporation, as indicated by the prefix "U": F, G, H, I, J, L, M, N, O, Q (only the following extracts: pages 1 to 4, being the letter agreement of May 11, 1943; of Contract No. W-7405 eng-78: the cover page; pages 1, 2 and 3; Article IV-J on page 23; that portion of page 27 beginning with the words "In witness whereof * * * " and all of page 28 of contract number W-7405, eng-78), R (only the following extracts: letter dated December 20, 1943, from John W. Hill to Metals Reserve Company and first four pages of report dated November 30, 1943), S, T, 2-B, 2-C, 2-F, 2-G, 2-H, 2-I, 2-N, 2-P, 2-R, 2-S, 2-U, 2-V, 2-W, 2-X, 2-Y, 2-Z, 3-A, 3-B, 3-C, 3-D, 3-E, 3-Q, 3-R, 3-W, 3-X, 3-Y, 3-Z, 4-A, 4-B, 4-R, 4-T, 4-U, 4-V, 5-D, 5-E, 5-F, 5-J, 5-K, 5-M, 5-R, 5-T.

4. The following exhibits introduced by the defendant Vanadium Corporation of America, as indicated by the prefix "V": 1-A, 1-B, 1-D, 1-E, V1-F, V1-G, V1-H, V1-I, 1-J, 1-K, V1-L, V1-M, 1-N, V1-O, 1-P, 1-Q, 1-R, 1-S, 1-T, 1-U, 1-V, 1-W, 1-X, 1-Y, 1-Z, 2-A, 2-B, 2-C, 2-D, 2-E, 2-F, 2-G, 2-H, 2-I, 2-J, 2-K, 2-L, 2-M, 2-N, 2-O, 2-P.

5. This designation.

Dated: San Francisco, October 31, 1958.

/s/ HERBERT W. CLARK,
/s/ RICHARD J. ARCHER,
/s/ GIRVAN PECK,
/s/ HOWARD M. DOWNS,
MORRISON, FOERSTER,
HOLLOWAY, SHUMAN
& CLARK,
Attorneys for Union Carbide Corporation and United States Vanadium Corporation.

/s/ J. G. HOLLAND,
/s/ EDWARD R. NEAHER,
PILLSBURY, MADISON
& SUTRO,
/s/ JOHN A. SUTRO,
/s/ ALLAN N. LITTMAN,
Attorneys for Vanadium Corporation of America.

Certificate of Service by Mail Attached.

[Endorsed]: Filed November 1, 1958. Paul P. O'Brien, Clerk.

[Title of Court of Appeals and Cause.]

SUPPLEMENTAL DESIGNATION BY APPELLEES UNION CARBIDE CORPORATION (SUED HEREIN AS UNION CARBIDE AND CARBON CORPORATION), UNITED STATES VANADIUM CORPORATION, AND VANADIUM CORPORATION OF AMERICA OF PORTIONS OF RECORD, PROCEEDINGS, AND EVIDENCE TO BE PRINTED

To the Clerk of the United States Court of Appeals for the Ninth Circuit:

Appellees Union Carbide Corporation (sued herein as Union Carbide and Carbon Corporation), United States Vanadium Corporation and Vanadium Corporation of America hereby designate the following additional parts of the record, proceedings, and evidence to be printed:

1. The following Plaintiffs' Exhibits: 6, 7, 8, 33, 37, 38, 40, 41, 44, 46, 58, 62, 63 (omitting last page, being a memorandum dated 2/14/47), 64, 77, 78, 110, 111, 113, 114, 115, 117, 119, 120, 130, 132, 144, 145, 146, 162, 166; Exhibits 136, 137 and 138 to be reduced in size by photostat.

2. The following exhibits introduced by the defendants Union Carbide and Carbon Corporation and United States Vanadium Corporation, as indicated by the prefix "U": B, C, D, E, K, P, U, Z, 2A, 4C, 4D, 4E, 4H, 4I, 4J, 4K, 4L, 4M, 4N, 4O,

4P, 4Q, 4R, 4S, 4T, 4U, 4V, 4W, 4X, 4Y, 4Z, 5A, 5B, 5H.

3. This designation.

Dated: San Francisco, December 8, 1958.

/s/ HERBERT W. CLARK,
/s/ RICHARD J. ARCHER,
/s/ GIRVAN PECK,
/s/ HOWARD M. DOWNS,
MORRISON, FOERSTER, HOLLOWAY, SHUMAN & CLARK,
Attorneys for Union Carbide Corporation and United States Vanadium Corporation.

/s/ J. G. HOLLAND,
/s/ EDWARD R. NEAHER,
PILLSBURY, MADISON & SUTRO,
/s/ JOHN A. SUTRO,
/s/ ALLAN N. LITTMAN,
Attorneys for Vanadium Corporation of America.

Acknowledgment of Service Attached.

[Endorsed]: Filed December 8, 1958. Paul P. O'Brien, Clerk.

VOLUME VI

TRANSCRIPT OF RECORD

Supreme Court of the United States

OCTOBER TERM, 1961

No. 304

CONTINENTAL ORE COMPANY, ET AL.,
PETITIONERS,

vs.

UNION CARBIDE AND CARBON
CORPORATION, ET AL.

ON WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

PETITION FOR CERTIORARI FILED AUGUST 11, 1961
CERTIORARI GRANTED OCTOBER 23, 1961

No. 16149

United States
Court of Appeals
for the Ninth Circuit

CONTINENTAL ORE COMPANY, a Partnership, and HENRY J. LEIR, ERNA D. LEIR, LINA SCHLOSS, as Individuals and as partners under the trade name and style of CONTINENTAL ORE COMPANY,

Appellants,

vs.

UNION CARBIDE AND CARBON CORPORATION; UNITED STATES VANADIUM CORPORATION; ELECTRO METALLURGICAL COMPANY; ELECTRA METALLURGICAL SALES CORPORATION; ELECTRO METALLURGICAL COMPANY OF CANADA, LIMITED; VANADIUM CORPORATION OF AMERICA,

Appellees.

Transcript of Record

In Seven Volumes

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144—Apex Correspondence re Defense Plant Corp., 1941 2266
Excerpts Read 1310-1312

Exhibits for Plaintiffs—(Continued):

146—Exchange of Correspondence, Apex and OPM, 1941 2270
Excerpts Read 1317-1318

149—File of Documents, Maggie "C" 1939-1941 2276
Excerpts Read 1573

150—Computation, USVC-VCA Business Maggie "C" 2322
Admitted in Evidence 1583
Excerpts Read 1584

157—Agreement, 6/12/42, VCA and Blanding 2341
Excerpts Read 1792-1793

158—Letter, 3/17/44, Continental to Milenski 1787, 2353
Letter, 3/17/44, Continental to Milenski 2354

160—Excerpt from Minutes of 5/7/42, Board of Directors of VCA 2355
Excerpts Read 1850

162—Letter, 11/3/39, Electro Met to VCA ... 2356
Excerpts Read 1885

Exhibits for Defendant Union Carbide and Carbon Co.:

B—Agreement, 2/25/42, USVC and Metals Reserve 2358
Excerpts Read 368-369

C—Agreement, 4/9/42, USVC and Metals Reserve 2363
Excerpts Read 371-373

Exhibits for Union Carbide—(Continued):

D—Agreement, 5/9/42, USVC and Metals Reserve 2369
Excerpts Read 374-375

I—Letter, 10/22/42, Hill to Smith 2381
Admitted in Evidence 393

J—Letter, 11/19/42, Bridgman to USVC 2385
Admitted in Evidence 394

K—Letter, 11/25/42, Bridgman to USVC 2387
Excerpts Read 395-396

L—Telegram, 1/7/43, Burwell to Masters . 2390
Excerpts Read 398

O—Letter, 10/12/43, Emigh to Hill, w/ enc. 2391
Excerpts Read 404-406

Q—Letter Agreement, May 11, 1943, Union Mines Development Corp. and United States of America 2397
Excerpts Read 418-421, 438-441

R—Report of Operations of USVC of 11/30/43 and Letter of 12/20/43 2410
Admitted in Evidence 437

T—Letter, 10/4/44, Burwell to Smith 2417
Excerpts Read 450

U—Agreement, 10/13/44, U. S. Vanadium Corp. and Metals Reserve Co. 2418
Admitted in Evidence 452

Z—Letter, 7/3/44, Metals Reserve to Union Mines 2430
Excerpts Read 466

Exhibits for Union Carbide—(Continued):

2-A—Letter, 5/20/47, Metals Reserve to Union Mines 2433
Excerpts Read 467-468

2-I—Contract, 12/10/46, Electro Metal Sales and Continental Ore 2434
Admitted in Evidence 619

2-R—Letter, 7/9/43, Nisley to Paige Edwards with Enclosures 2437
Excerpts Read 712-713

2-U—Letter, 12/13/43, Nisley to Leir 2440
Excerpts Read 729-730

3-C—Letter, 10/8/44, Nisley to Leir 2444
Excerpts Read 742

3-Q—Letter, 7/14/42, Wolf to North Continent Mines 2446
Excerpts Read 912-913

4-A—Letter, 8/3/42, Wolf to Nisley & Wilson 2449
Excerpts Read 934

4-H—Letter, 5/4/43 Continental to Electro Met 2451
Admitted in Evidence 948

4-R—Letter, 8/4/44, Metals Reserve to Continental 2452
Letter, 9/20/44, Metals Reserve to Continental 2453
Contract, 9/26/44, Metals Reserve and Continental 2454
Excerpts Read 964

Exhibits for Union Carbide—(Continued):
4-T—Letter, 11/1/44, Wolf to Imperial P & C 2457
Excerpts Read 969
4-X—Contract, 1/29/46, Continental and Electro Met 2459
Excerpts Read 977
4-Z—Letter, 1/29/46, Electro Met Sales to Continental and Enclosed Contract ... 2461
Excerpts Read 982
5-D—General Price Control, OPA, 11/2/43 2462
Excerpts Read 987
5-E—Invoice, 5/24/46, Continental to Sulzer Bros. 2467
Admitted in Evidence 991
5-F—Letter, 3/21/46, Continental to Electro Met Sales 2468
Excerpts Read 993
5-H—Contract, 9/10/48, Electro Met-Continental 2469
Admitted in Evidence 997
5-J—Letter, 10/15/43, Nisley to Continental 2471
Letter, 10/28/43, Leir to Nisley 2472
Excerpts Read 1209
5-K—Exchange of Correspondence 1939, Continental-Vitro 2474
Excerpts Read 1219
5-T—Manhattan Engineers District—USEO—Warehouse, Grand Junction, Colorado "Summary of Material Balance Statements, Vanadium Oxide (V_2O_5) in Pounds, Dec. 1, 1943 thru Feb. 1956" 2485
Admitted in Evidence 1985

Exhibits for Vanadium Corp.

1-A—Letter, 11/5/41, Leir to Apex 2487
Excerpts Read 1003, 1159
1-D—Agreement, 7/14/38, Apex-Societe, etc. 2489
Admitted in Evidence 1115
1-E—Letter, 7/27/40, Leir to Milenski 2490
Admitted in Evidence 1117
1-F—Letter, 8/10/40, Leir to Milenski 2492
Excerpts Read 1118
1-G—Letter, 8/16/40, Milenski to Continental 2495
Excerpts Read 1121
1-H—Letter, 8/19/40, Continental to Blanding 2496
Excerpts Read 1122
1-J—Letter, 8/20/40, Leir to Apex 2498
Excerpts Read 1127
1-K—Letter, 12/16/40, Continental to Apex 2501
Excerpts Read 1133
1-L—Letter, 11/6/40, Continental to Apex . 2505
Excerpts Read 1136
1-N—Letter, 10/17/40, Leir to Apex 2506
Excerpts Read 1139
1-Q—Exchange Correspondence, 1941, National Vanadium, Apex and Continental 2507
Excerpts Read 1146-1150
1-R—Letter, 9/26/41, Continental to Natl. Vanadium 2514
Excerpts Read 1151

Exhibits for Vanadium Corp.—(Continued):
1-T—Leir Office Memo 11/27/41 and Letter 11/27/41, Leir to Apex 2515
Excerpts Read 1163
1-U—Letter, 12/3/41, Continental to Apex . 2518
Excerpts Read 1164
1-Y—Memo, 1/27/42, Continental to Apex .. 2519
Excerpts Read 1173
2-B—Letter, Apex to Leir, 6/2/42, ...1188, 1293
Balance Sheet 2520
Admitted in Evidence 1192
2-C—Letter, 1/28/43, Leir to Lippa 2524
Letter, 2/1/43, Lippa to Leir 2523
Excerpts Read 1194
2-G—Letter, 1/13/42, Apex to Continental . 2529
Letter, 1/19/42, Lippa to Leir 2528
Excerpts Read 1291
2-H—Letter, 4/23/42, Apex to Vanadium Corp. 2530
Excerpts Read 1359
2-J—Letter, 3/16/42, Leir to Blanding ... 2532
Excerpts Read 1711
2-K—Exchange of Correspondence, 1944, re Reopening Blanding Mill 2533
Excerpts Read 1715-1723, 1799
2-L—Wire 3/24, Continental from Milenski . 2554
Excerpts Read 1724, 1777
2-M—Price Regulations 2555
Admitted in Evidence 1728

PLAINTIFFS' EXHIBIT No. 6

VANADIUM PLANTS

Item 4—Information pertaining to vanadium mills, owned, leased and operated.

Under date of Sept. 16, 1919 the Corporation purchased the physical assets of the American Vanadium Company for a price of $3,000,000. Included in such assets was a Reduction Plant for treatment of vanadium ores at Bridgeville, Allegheny Co., Penna. This plant has been in operation since date of acquisition to present date.

The Corporation under date of Jan. 1, 1920 purchased certain assets of the Primos Chemical Co. for an amount approximating $2,000,000. Included in this purchase was a Reduction Plant at Primos, Penna. and a vanadium mill at Vanadium, Colorado. Operations at both the above mills ceased in the latter part of 1920 due to economic conditions in business at that time. These operations were never resumed and the properties at Primos, Penna. were sold. The Vanadium, Colorado mill has been dismantled and most of equipment moved and installed at other operations of the Corporation in Western, U.S.A.

Through purchase at a foreclosure sale, the Corporation acquired the assets of Rare Metals Corporation for an amount of $428,000. which was the amount of a judgment Vanadium Corporation of America held against Rare Metals Corporation. The sale was confirmed as of Jan. 25, 1932. Included in the assets acquired was a vanadium mill at Natu-

Plaintiffs' Exhibit No. 6—(Continued)

rita, Colorado. Due to economic conditions in the vanadium industry, this mill was idle until late in 1939 when rehabilitation work was started. Regular operations have been carried on since about the middle of 1940 to date.

The Monticello, Utah plant, which is Government owned, was operated by Vanadium Corporation of America from Sept. 1, 1942 until Feb. 29, 1944, under an Agency Agreement with the Metals Reserve Corporation, a United States Government Agency.

This plant was further operated by Vanadium Corporation of America from Feb. 15, 1945 to April 30, 1946, under lease with Defense Plant Corporation, a United States Government Agency.

/s/ P. J. GIBBONS,
6/14/50.

Interrogatory No. 7

United States Vanadium Corporation was the owner of a mill for the processing of vanadium-bearing ores at Rifle, Colorado, from 1927 to 1932. In 1932 the mill was shut down and sometime later was dismantled.

United States Vanadium Corporation is the owner of a mill for the processing of vanadium-bearing ores erected in 1936 at Uravan, Colorado.

United States Vanadium Corporation is the owner of a mill for the processing of vanadium-bearing ores erected in 1942 at Rifle, Colorado.

Plaintiffs' Exhibit No. 6—(Continued)

United States Vanadium Corporation was the owner of a mill for the processing of vanadium-bearing ores at Durango, Colorado, from July 31, 1944 to June 2, 1948.

United States Vanadium Corporation was the owner of a plant for the manufacture of ferrovanadium at Columbiana, Ohio, from 1927 to July 31, 1942, when the plant was transferred to Electro Metallurgical Company. On November 30, 1948, Electro Metallurgical Company was liquidated and Union Carbide and Carbon Corporation became the owner of the plant, which is now operated by its Electro Metallurgical Division.

Electro Metallurgical Company was the owner of a plant at Niagara Falls, N. Y., from 1908 to November 30, 1948, in which Ferrovanadium was produced after 1935. On November 30, 1948, Electro Metallurgical Company was liquidated and Union Carbide and Carbon Corporation became the owner of the plant, which is now operated by its Electro Metallurgical Division.

Electro Metallurgical Company was the owner of a plant erected in 1934 at Alloy, West Virginia, in which ferrovanadium was produced after 1940. On November 30, 1948, Electro Metallurgical Company was liquidated and Union Carbide and Carbon Corporation became the owner of the plant, which is now operated by its Electro Metallurgical Division.

PLAINTIFFS' EXHIBIT No. 7

Interrogatory No. 7

State the location of any mills and refineries for the processing of vanadium-bearing materials or for the manufacture of ferrovanadium owned, operated or leased by you or your subsidiaries and the length of time each has been under ownership or lease.

Answer

The following is a list of the mills and refineries for the processing of vanadium-bearing materials and for the manufacture of ferrovanadium owned, operated or leased by Vanadium Corporation of America between January 1, 1933 and August 8, 1949, and, with respect to each, the length of time under ownership or lease:

Mina Ragra, Peru, Leaching Mill, owned since September 16, 1919.

Naturita, Colorado, Leaching Mill, owned since January 25, 1932.

Durango, Colorado, Leaching Mill, leased since October 7, 1948.

Monticello, Utah, Leaching Mill, operated for the Government by Vanadium Corporation of America between September 1, 1942 and February 29, 1944, and leased by Vanadium Corporation of America between February 15, 1945 and April 30, 1946.

Bridgeville, Pennsylvania, Refinery, owned since September 16, 1919.

PLAINTIFFS' EXHIBIT No. 8

Interrogatory No. 17

"State the volume by years of vanadium oxide purchased or sold by Union Carbide or any of its subsidiaries from or to the Vanadium Corporation of America and any of its subsidiaries, and the prices paid therefor."

Answer

The following is a tabulation of the volume by years of vanadium-oxide purchased by Vanadium Corporation of America from Electro Metallurgical Sales Corporation, a subsidiary of Union Carbide, and the prices paid therefor:

1933	216,412	lbs. at	$0.80	lb. V_2O_5 contained
1934	786,686	lbs. at	$0.80	lb. V_2O_5 contained
1935	495,423	lbs. at	$0.80	lb. V_2O_5 contained
1936	360,401.2	lbs. at	$0.80	lb. V_2O_5 contained
1937	540,784.72	lbs. at	$0.80	lb. V_2O_5 contained
1938	130,052.27	lbs. at	$0.80	lb. V_2O_5 contained
	17,500.18	lbs. at	$1.10	lb. V_2O_5 contained
1939	46,000	lbs. at	$0.80	lb. V_2O_5 contained
	14,000	lbs. at	$1.18	lb. V_2O_5 contained
1940	None			
1941	None			
1942	None			
1943	None			
1944	None			
1945	None			
1946	None			
1947	None			

Plaintiffs' Exhibit No. 8—(Continued)

1948 None
1949 None

Vanadium Corporation of America did not sell any vanadium-oxide to Union Carbide or any of its subsidiaries during this period.

Under an agreement between Vanadium Corporation of America and United States Vanadium Corporation dated June 30, 1939,* United States Vanadium Corporation milled vanadium ore belonging to Vanadium Corporation of America and delivered to Vanadium Corporation of America 75% of the vanadium-oxide content of such ore. United States Vanadium Corporation made a processing charge to Vanadium Corporation of America for this service of $0.65 per lb., vanadium-oxide contained, on all amounts delivered in 1939 and $0.75 per lb., vanadium-oxide contained, for all amounts delivered during 1940. 517,847 lbs. were delivered under this contract in 1939 and 200,000 lbs. in 1940.

[Note: Underscored in Pen. Marginal Note: "Maggie - C".]

PLAINTIFFS' EXHIBIT No. 11

Inter-Company Correspondence

[Handwritten Note: Ore purchases, general.]

Date: September 25, 1944
Answering Letter Date: September 14, 1944

Company: United States Vanadium Corp. Location: Grand Junction, Colorado.

To: Mr. Blair Burwell, Vice-President, United States Vanadium Corporation.

Location: Room 1425, 30 East 42nd Street, New York 17, New York.

Attention, Copy to: Mr. W. G. Haldane.

Subject: Past Procedure—Ore Prices, Etc.

Dear Blair:

In reviewing the ore purchase records at Uravan VP Plant and checking with Joe Weston, we submit the following information concerning ore purchases at Uravan:

1. The earliest ore settlement found on record was for October, 1938. From October, 1938 to September, 1939, the purchase of ore was in most cases by special arrangement for individual purchases. Ore purchased on V_2O_5 contained was 17c per lb. for 2% V_2O_5 ore, increasing 1c per lb. for each percent increase above 2%. At the same time there was a rate for mined ore paid at $14 per ton for ore which assayed from 3% V_2O_5 to 5% V_2O_5. Ore which was produced from the Company mines was

Plaintiffs' Exhibit No. 11—(Continued)

paid for at the varying scale of 9c per lb. V_2O_5 to 15c per lb. V_2O_5 contained. During this time the ore which was being offered for sale was not considered greatly important due to the fact that the stockpiles were being increased by Company mining operations.

2. By September, 1939, more ore was offered for sale and it seemed necessary to establish a regular market price. Attachment No. I lists the prices which were paid at this time.

3. On January 1, 1941, we increased the amount paid to the sellers by paying 5c per ton mile in addition to the price schedule shown on Attachment I. In order to encourage production from mines located at such a distance from the plant transportation allowances were necessary for the continuance of these operations.

4. In June, 1942, an additional allowance of $1.50 per ton on ore delivered was added to the schedule Attachment No. I in order to meet competition with plants more favorably located to receive ore from south and southwest areas.

5. In 1941, to meet individual conditions, some special contracts were made for purchase of ore by the ton. One instance was that Harold Stone was paid $7 per ton F.O.B. Uravan for 1,000 tons of ore acceptable only at a minimum average grade of 1.75% V_2O_5. Another instance is the case of the Mesa Vanadium contract with George McKee which

Plaintiffs' Exhibit No. 11—(Continued)

was taken over by us at the following prices F.O.B. Uravan for 3,000 tons:

From 2% to 3% V_2O_5, $8.95 per dry ton.
From 3% to 4% V_2O_5, 16.31 per dry ton.
From 4% to 5% V_2O_5, 22.69 per dry ton.
From 5% to 6% V_2O_5, 34.06 per dry ton.
For Ore Over 6% V_2O_5, .25 per pound V_2O_5.

6. On June 1, 1942, the price schedule was changed as per Attachment No. II which increased the price 10c per lb. for 2% V_2O_5 ore. The raise in price at this time was made to the various number of producers who were delivering ore to Uravan because they were so unfavorably located for delivering ore to Metals Reserve Company ore buying stations.

7. On May 1. 1944, the schedule shown on Attachment No. III was put into effect. This change was the deleting of the transportation allowance of 5c per ton mile and $1.50 per ton and a discontinuance of acceptance of ore which analyzed less than 2% V_2O_5. This price schedule was affected due to the fact that Metals Reserve Company had discontinued purchase of ore and a schedule for present and future prices was necessary to be maintained.

Yours very truly,

/s/ J. L. ROBISON.

J. L. Robison/my
Attachments—3

Plaintiffs' Exhibit No. 11—(Continued)

Attachment No. I

PURCHASED ORE PRICES

Effective September, 1939

Grade	% Grade	Amount
Under	1.50	.150
1.50	1.75	.175
1.75	2.00	.200
2.00	2.25	.210
2.25	2.75	.215
2.75	3.25	.220
3.25	3.75	.225
3.75	4.25	.230
4.25	4.75	.235
4.75	5.25	.240
5.25	5.75	.245
5.75	6.25	.250
6.25	6.75	.255
6.75	7.25	.260
7.25	7.75	.265
7.75	8.25	.270
8.25	8.75	.275
8.75	9.25	.280
9.25	9.75	.285
9.75	10.25	.290
10.25	10.75	.295
10.75	11.25	.300
11.25	11.75	.305
11.75	12.25	.310
12.25	12.75	.315

Plaintiffs' Exhibit No. 11—(Continued)

Grade Under	% Grade	Amount
12.75	13.25	.320
13.25	13.75	.325
13.75	14.25	.330
14.25	14.75	.335
14.75	15.25	.340

Attachment No. II

PURCHASED ORE PRICES

Effective June 1, 1942

Grade Under	% Grade 1.50	Amount $.25
1.50	1.75	.26
1.75	2.00	.28
2.00	2.25	.31
2.25	2.75	.32
2.75	3.25	.33
3.25	3.75	.34
3.75	4.25	.35
4.25	4.75	.36
4.75	5.25	.37
5.25	5.75	.38
5.75	6.25	.39
6.25	6.75	.40
6.75	7.25	.40

Transportation allowance 5c per ton mile for maximum of 60 miles on ore over 2% V_2O_5.

Plaintiffs' Exhibit No. 11—(Continued)

Attachment No. III

PURCHASED ORE PRICES

Effective May 1, 1944

% Grade V_2O_5	% Grade V_2O_5	Amount
2.00	2.25	$.31
2.25	2.75	.32
2.75	3.25	.33
3.25	3.75	.34
3.75	4.25	.35
4.25	4.75	.36
4.75	5.25	.37
5.25	5.75	.38
5.75	6.25	.39
6.25	6.75	.40

F.O.B. Uravan—Carload Lots Thompson, Utah.

Buyer will accept no ore less than 2.0%.

Average over payment period.

May 20, 1944

Mr. Simeon Nash, Secy.
Utah Alloy Ores, Inc.
209 South High Street
Columbus, Ohio

Dear Mr. Nash:

Mr. Blair Burwell has instructed me to answer your inquiry of May 17, 1944, concerning the sale of vanadium ore from your Yellow Cat property near Thompsons, Utah. Enclosed please find a

Plaintiffs' Exhibit No. 11—(Continued)

schedule of purchased ore prices effective May 1, 1944. You will note that no ores will be accepted that average less than 2% V_2O_5. The basic price for 2% ore is 31c, and the rate increases 1c for each ½% gain in V_2O_5. For ores containing 6.25% V_2O_5 or more, the price is 40c per pound of V_2O_5, being the maximum price paid for ores.

The ore will be accepted in carload lots, loaded by the seller at Thompsons, Utah, and sampled by the buyer at Rifle, Colorado, railroad transportation to be paid by the buyer at Rifle, Colorado, the minimum carload being 100,000 pounds, the seller to be penalized in a proportionate amount of railroad charges if the car is loaded light. The car will be ordered by the seller and billed out to the buyer by the seller to the buyer's plant at Rifle, Colorado.

A carload of ore will be considered as one lot, thus eliminating the possibility that you requested of loading several grades of ore into one car to be sampled in various lots. Mr. Burwell recommends that the ores containing 4% V_2O_5 or more be shipped to Rifle by truck, the buyer allowing the seller $5.00 per ton on this type of ore. No payment of transportation will be made on ores containing less than 4% V_2O_5. Railroad weights will be used as a basis of settlement on carload lots.

The standard sampling procedure established throughout this area will govern. I am sure that you are familiar with this procedure, the principal points being that the seller has a right to be repre-

Plaintiffs' Exhibit No. 11—(Continued)

sented at the sampling and has a right to request an umpire analysis of the sample.

Payments can be arranged on a semi-monthly basis, that is on the first and fifteenth day of the month. Payments will be made for ores received five days prior to that time.

The United States Vanadium Corporation reserves the right to terminate any and all ore purchase agreements between these parties by giving the other party thirty days notice in writing.

Very truly yours,

UNITED STATES VANADIUM CORPORATION,

/s/ JOHN W. HILL, f.r.,
John W. Hill.

JWH:fr
Encl. 1
cc: Messrs. J. R. Van Fleet, Blair Burwell, G. Donald Emigh, J. L. Robison, C. C. Sterns, R. D. Nye, J. E. Weston.

PURCHASED ORE PRICES

Effective March 1st, 1944

% Grade V_2O_5	% Grade V_2O_5	Amount
2.00	2.25	$.31
2.25	2.75	.32
2.75	3.25	.33
3.25	3.75	.34

Plaintiffs' Exhibit No. 11—(Continued)

% Grade V_2O_5	% Grade V_2O_5	Amount
3.75	4.25	.35
4.25	4.75	.36
4.75	5.25	.37
5.25	5.75	.38
5.75	6.25	.39
6.25	6.75	.40

f.o.b. Thompsons.

Buyer will accept no ore less than 2.00%.

Average over payment period.

United States Vanadium Corp., New York City

September 14, 1944

Mr. J. L. Robison
United States Vanadium Corporation
Grand Junction, Colorado
Mr. W. G. Haldane
Mr. J. E. Weston

Past Procedure—Ore Prices, etc.

Dear Jack:

We have recently been asked for a review of ore prices and ore buying arrangements since 1926 in Colorado.

I wish you and Joe Weston would go over this and give me a summary of our past procedure in this connection. Joe can probably supply a great deal of information from his memory as to Uravan ore purchases beginning in 1936.

It would be of value to make a running story of

Plaintiffs' Exhibit No. 11—(Continued)

what range of prices existed and when changes occurred and the reasons for these changes of price.

Yours very truly,

/s/ BLAIR BURWELL.

vl/Blair Burwell
ICC

Ore Purchase Schedule in Effect
at Naturita, March, 1940

% V_2O_5	Price per lb. V_2O_5 Contained
2.00-2.49	21.0c
2.50-2.99	21.5
3.00-3.49	22.0
3.50-3.99	22.5
4.00-4.49	23.0
4.50-5.00	23.5
5.00-5.49	24.0
5.50-6.00	24.5
6.00 and over	25.0

On or About July 1st, 1940, V.C.A. Started
to Pay on the Following Schedule

This Schedule Remained in Effect Until the 31c
Schedule Was Established on May 29, 1942

% V_2O_5	Price per lb. V_2O_5 Contained
2.00-2.09	21.0c
2.10-2.19	21.1
2.20-2.29	21.2
2.30-2.39	21.3

Plaintiffs' Exhibit No. 11—(Continued)

% V_2O_5	Price per lb. V_2O_5 Contained
2.40-2.49	21.4
2.50-2.59	21.5
2.60-2.69	21.6
2.70-2.79	21.7
2.80-2.89	21.8
2.90-2.99	21.9
3.00-3.09	22.0
3.10-3.19	22.1
3.20-3.29	22.2
3.30-3.39	22.3
3.40-3.49	22.4
3.50-3.59	22.5
3.60-3.69	22.6
3.70-3.79	22.7
3.80-3.89	22.8
3.90-3.99	22.9
4.00-4.09	23.0
4.10-4.19	23.1
4.20-4.29	23.2
4.30-4.39	23.3
4.40-4.49	23.4
4.50-4.59	23.5
4.60-4.69	23.6
4.70-4.79	23.7
4.80-4.89	23.8
4.90-4.99	23.9
5.00-5.09	24.0
5.10-5.19	24.1
5.20-5.29	24.2

Plaintiffs' Exhibit No. 11—(Continued)

% V_2O_5	Price per lb. V_2O_5 Contained
5.30-5.39	24.3
5.40-5.49	24.4
5.50-5.59	24.5
5.60-5.69	24.6
5.70-5.79	24.7
5.80-5.89	24.8
5.90-5.99	24.9
6.00 and over	25.0

Ore Purchase Schedule in Effect at Naturita and Monticello From May 29th, 1942

% V_2O_5	Price per lb. V_2O_5 Contained
2.00-2.09	.31
2.10-2.19	.312
2.20-2.29	.314
2.30-2.39	.316
2.40-2.49	.318
2.50-2.59	.32
2.60-2.69	.322
2.70-2.79	.324
2.80-2.89	.326
2.90-2.99	.328
3.00-3.09	.33
3.10-3.19	.332
3.20-3.29	.334
3.30-3.39	.336
3.40-3.49	.338
3.50-3.59	.34

Plaintiffs' Exhibit No. 11—(Continued)

% V_2O_5	Price per lb. V_2O_5 Contained
3.60-3.69	.342
3.70-3.79	.344
3.80-3.89	.346
3.90-3.99	.348
4.00-4.09	.35
4.10-4.19	.352
4.20-4.29	.354
4.30-4.39	.356
4.40-4.49	.358
4.50-4.59	.36
4.60-4.69	.362
4.70-4.79	.364
4.80-4.89	.366
4.90-4.99	.368
5.00-5.09	.37
5.10-5.19	.372
5.20-5.29	.374
5.30-5.39	.376
5.40-5.49	.378
5.50-5.59	.38
5.60-5.69	.382
5.70-5.79	.384
5.80-5.89	.386
5.90-5.99	.388
6.00-6.09	.39
6.10-6.19	.392
6.20-6.29	.394
6.30-6.39	.396
6.40-6.49	.398
6.50 and over	.40

PLAINTIFFS' EXHIBIT No. 22

6-111-Revised
(August 1956)

United States of America
United States
Department of the Interior
Bureau of Mines

Washington 25, D. C., May 28, 1958

Pursuant to the act approved August 24, 1912, as amended (U. S. C., title 5, sec. 488), I hereby certify that the annexed data have been taken from records of the Bureau of Mines or reports submitted to the Bureau of Mines on "ore of own production" and "ore purchases" (both in terms of V_2O_5 content in pounds) of the United States Vanadium Corporation for the years 1933-1947 inclusive.

In Testimony Whereof, I have hereunto subscribed my name and caused the seal of the Bureau of Mines, Department of the Interior, to be affixed, the day and year first above written.

[Seal] L. A. HILL,
Acting Chief, Division of
Administration.

[Letterhead of United States Department of the Interior, Bureau of Mines.]

United States Vanadium Corporation
(Union Carbide Nuclear Company)

Ore of own production and ore purchases in terms of V_2O_5 content (pounds) for the years 1933-1947 inclusive.

Plaintiffs' Exhibit No. 22—(Continued)

Year	Ore of own production	Ore purchases
1933	———	———
1934	———	———
1935	———	———
1936	———	———
1937	2,400,000	———
1938	2,306,976	———
1939	2,703,821	———
1940	(est. using 1.27% V_2O_5 content) 3,103,667	(est. using 2.87% V_2O_5 content) 1,186,115.32
1941	(est. using 1.22% V_2O_5 content) 1,829,316.80	(est. using 1.44% V_2O_5 content) 602,035.20
1942	3,607,737.59	405,475.04
1943	3,858,712.86	83,867.56
1944	2,224,805.76	259,568.45
1945	2,379,439.39	415,232.07
1946	1,644,291.00	36,957.00
1947	2,597,483.00	———

PLAINTIFFS' EXHIBIT No. 23

6-111-Revised
(August 1956)

United States of America
United States
Department of the Interior
Bureau of Mines
Washington 25, D. C., May 28, 1958

Pursuant to the act approved August 24, 1912, as amended (U. S. C., title 5, sec. 488), I hereby certify that the annexed data have been taken from records of the Bureau of Mines or reports submitted to the Bureau of Mines on "ore of own production" and "ore purchases" (both in terms of V_2O_5

Plaintiffs' Exhibit No. 23—(Continued)

content in pounds) of the Vanadium Corporation of America for the years 1933-1947 inclusive.

In Testimony Whereof, I have hereunto subscribed my name and caused the seal of the Bureau of Mines, Department of the Interior, to be affixed, the day and year first above written.

[Seal] L. A. HILL,
Acting Chief, Division of
Administration.

[Letterhead of United States Department of the Interior, Bureau of Mines.]

Vanadium Corporation of America

Ore of own production and ore purchases in terms of V_2O_5 content (pounds) for the years 1933-1947 inclusive.

Year	Ore of own production	Ore purchases
1933	———	———
1934	———	———
1935	———	———
1936	———	———
1937	———	———
1938	———	———
1939	———	———
1940	(est. using 1.81% V_2O_5 content) 302.487	(est. using 2.26% V_2O_5 content) 197,976
1941	(est. using 2.01% V_2O_5 content) 953,343	(est. using 2.35% V_2O_5 content) 423.517
1942	1.640.415	769.834
1943	2.128.165.59	327,577
1944	718.900.32	375,680
1945	360.971.30	1,530,662.82
1946	124,691	149,665
1947	688.602	284,039

PLAINTIFFS' EXHIBIT No. 35

Inter-Company Correspondence
[Handwritten Note: Reports-Progress.]

Company: United States Vanadium Corp. Location: Uravan, Colorado.
To: United States Vanadium Corp.
Location: New York City, New York.
Date: November 2, 1941.
Attention: Mr. W. G. Haldane.
Copy to: Mr. Blair Burwell.

Dear King,

I am sending this letter to you in New York with a copy to you at the Brown Palace in Denver, as you may leave New York before it can reach you, and I do want you to be acquainted with what we are doing, as soon as possible. Blair just left here, and left us with his usual amount of good suggestions, most of which have been under consideration by you men for some time.

* * * * *

We have been fortunate in finding a jaw crusher at Morse Brothers, which has an opening 8" x 24", and which can be closed down to deliver ¾" material. This will give us a very good sample.

In connection with this sampling plant, and with the necessity for good samples, I feel I have run on to an interesting condition which may or may not exist, but which I will call to your attention, and await your suggestions. As you well know, the Vanadium Corporation of America have been having

Plaintiffs' Exhibit No. 35—(Continued)

a hard time getting ore. When they first came into the district, or rather when I first arrived here, there was plenty of evidence that they were increasing the price paid for outside ore. Blair's trip in here and his discussion with Blitz remedied that matter. I feel it is now breaking out in another, but more subtle manner. If you would ride past and estimate the Vanadium Corporation of America stockpile, and then look at our own, it would be easy to see who is getting the purchased ore. Their scheme, as I see it, is this. We have reliable shippers, wanting to continue doing business with us, who are hearing stories of better treatment given them by Vanadium Corporation of America. They have shipped alternate loads from the same ore pile to us and to Vanadium Corporation of America. Joe Weston has seen several settlement sheets in the hands of our former shippers, which seem to indicate either, that our sampling is wrong, or that Vanadium Corporation of America sampling is wrong, or that some motive is behind the fact that their assays are from ½ to ¾% over what our samples show.

It seems rather ridiculous to make this statement until you analyze it. Vanadium Corporation of America needs ore, or they cannot stay in business, as the production from their Company owned mines is not sufficient. Any propaganda instituted by them that could influence a shipper to sell to them, and at the same time insinuate that our treatment

Plaintiffs' Exhibit No. 35—(Continued)

of these shippers was unfair, such as increasing assays, would certainly be to their advantage. If we then consider what it costs them to do that, we find that the price is not too high. For example, if we have a lot of ore that assays 2.01% V_2O_5, we would pay the shipper $8.44 a ton. If instead of using the correct assay, we announce that the value was 2.5% V_2O_5, thus raising the actual assay ½%, we would pay the shipper $10.75 a ton. In other words we would be paying $2.39 more than our schedule calls for, which is equal to a difference of 6c a pound of contained V_2O_5. This is a small amount when considered further from the standpoint of the fact that we can say that 40 pounds of V_2O_5 times 70% mill recovery, will return us $28.00. In other words this margin of profit, with a well run operation, is great enough to offset this extra cost of 6c a pound, and is justified when it is considered that such a practice will disparage a competitor and secure the larger portion of the independent production. This thought may not be in line, and I perhaps ought to be censured for being suspicious. However, once we get our sampling plant in working order, we, ourselves, can be very sure of our assays and if the Vanadium Corporation of America practice continues, we can feel that the suggestion made herein is a possibility.

Staff House, Club Ranch, Office Extension

These items were taken up with Blair, and were given his approval, naturally with certain reserva-

Plaintiffs' Exhibit No. 35—(Continued)

tions. They will be started as soon as possible, but not prior to such necessities as the dryer, the new coal mine, and other changes which have to do with the main operation.

* * * * *

Yours sincerely,

S. POWER WARREN.

PLAINTIFFS' EXHIBIT No. 38

United States Vanadium Corp.
New York City

March 6th, 1944

Mr. J. A. Rafferty
Room 1626
Building

Mr. Blair Burwell, Durango Plant

Dear Mr. Rafferty:

I am attaching hereto a memorandum summarizing the situation at Durango.

The "Right to Purchase" clause, copy of which I am also enclosing, is a little involved since it covers only the "buildings, machinery and equipment"; however, it is our feeling that AS&R will be willing to sell the site (exclusive of a small portion on which a slag pile is located) for $4,000.00-$5,000.00. Aside from this pile, which has some gold, silver and lead values in the form of shots of base bullion

Plaintiffs' Exhibit No. 38—(Continued)

and copper matte, the AS&R has withdrawn completely from the Durango field and would be interested in disposing of its last holding, namely, the plant site, exclusive of this slag pile.

It is my understanding, too, that at about the turn of the year, the Army indicated to Metals Reserve Company that it (Army) was not interested in taking Durango over.

If I can be of further service, please do not hesitate to let me know.

Yours very truly,

hi/W. G. Haldane
IC
Att.

Memorandum
Durango Plant

In the Vanadium Agency Agreement with Metals Reserve Company, among other provisions, United States Vanadium Corporation agreed to build and operate for Metals Reserve Account, a vanadium plant at Durango, Colorado, to have a capacity of approximately 100 tons of sandstone ore per day and at a construction cost not to exceed $100,000.00 (total cost actually was $101,000.00). The plant is located on the site of the old lead smelter of the American Smelting and Refining Company under a 5 year lease to Metals Reserve Company at an annual rental of $100.00 per year.

Plaintiffs' Exhibit No. 38—(Continued)

The contract further provides that upon its termination, United States Vanadium Corporation shall be granted for a period of 90 days the right and option to purchase the buildings, equipment and machinery constituting the plant at actual cost to Metals Reserve Company less depreciation, obsolescence, etc. at the rate of 12½% per annum. At the present time, the plant is subject to the maximum depreciation allowable, namely, 25%. Cost, therefore, is approximately $75,000.00+.

At the date of closing down the plant, February 29th, there exists at the plant, and entirely distinct therefrom, a stockpile of crude ore of approximately 14,000 tons of a V_2O_5 tenor averaging better than 1.85% or roughly 500,000 lbs. of contained V_2O_5.

United States Vanadium Corporation considers it highly essential that it acquire this plant for the following reasons:

1. To maintain its position in the vanadium industry of the southwest. Repeated reports have reached this Company of plans of outsiders to acquire the plant in the event United States Vanadium Corporation decides not to exercise its option. The injection of additional operators in this field would undoubtedly seriously disturb conditions in the vanadium industry in the post-war period.

2. Acquisition of the plant facilities would place the Company in a strategic position with regard to either the purchase of the stockpiled ore, or a deal

Plaintiffs' Exhibit No. 38—(Continued)

with Metals Reserve Company to process it for them. Similar stockpiles have recently been offered for sale by Metals Reserve Company at 35c per lb. V_2O_5 contained. In either event, processing of the stockpile would more than pay for the plant.

3. You are aware of the discussions now going on between United States Vanadium Corporation and Army officials covering the application of an alkaline leach to crude carnotite ores. Tests to date indicate a 90% extraction of the U content and approximately 20% of the V. Arrangements are now being studied for the installation of a 50-ton unit embodying such a flow sheet. The Durango site has much to commend it over Uravan in that it is free from many of the accessory and auxiliary departments peculiar to Uravan. Power, fuel, water are readily available, as well as housing, commissary and hospital and other facilities. The labor market at Durango is very definitely better. Durango would, furthermore, be the logical place to treat the Uranium ores of the Navajo Indian reservation, as well as those from the McIntyre Canon sector.

In conclusion, it has been our definite feeling that we should arrange to take over this plant within the option period.

hi/W. G. Haldane
3/6/44

PLAINTIFFS' EXHIBIT No. 39

Vanadium Corporation of America
Inter-Office Communication

Date: March 21, 1944.

To: F. F. Kett, Gen. Mgr., Mining Division, 420 Lexington Avenue, New York.

From: D. W. Viles, Ass't. Manager, Western Division, Naturita, Colorado.

Subject: Purchase of Dry Valley.

In regard to the purchase of the Dry Valley property belonging to the Moly Corporation, there is considerable low grade ore in the Frisco and Water Falls Group and this property, in my mind, if it could be purchased, say for $2000.00, would be a good investment if only to prevent some outsider getting ideas in regard to the Monticello Plant.

So far as the assessment work is concerned, there is no doubt we will drop some of the claims in this group and as the ones held would probably be continuous, our assessment work will be taken care of with what mining was done on any one claim. We could start doing a little leasing on some of this property as soon as the deal was completed.

I am enclosing monthly composite for six months on the U308 for the complete Reservation ores. These assays were run by Metals Reserve in Grand Junction.

D. W. VILES.

DWV/er
1 Encl.

PLAINTIFFS' EXHIBIT No. 44

(Copy)

Memorandum

U.S.V.C. agrees to mine the ore from the Maggie C Claim situated in Lower Park, near Uravan, Colorado, owned by V.C. and such other claims now owned by V.C. in the vicinity of Uravan, Colorado, as the parties from time to time agree upon, to mill such ore and produce therefrom fused V_2O_5 analyzing 85% V_2O_5 minimum (hereinafter called oxide) and to deliver thirty thousand (30,000) pounds per month of oxide so produced to V.C., f.o.b. its Bridgeville, Pa. Plant. Additional quantities of oxide may be delivered in any month by agreement of the parties as advance deliveries of oxide from ore to be mined and milled hereunder. During the period covered by this agreement U.S.V.C. shall have the sole right to mine and mill the ore from the aforesaid claim or claims.

The ore shall be mined and milled by the standard methods then being used by U.S.V.C. on its own production. U.S.V.C. shall not be required to mine and mill the ore separately from its own production but may mix the ore with its own ore. Accurate records shall be kept by U.S.V.C. of all of the weights and analysis of all ore mined and milled in accordance with methods to be mutually agreed upon and U.S.V.C. shall deliver to V.C. seventy-five percent (75%) of the V_2O_5 content of the ore of V.C. mined by it.

Plaintiffs' Exhibit No. 44—(Continued)

In addition to records of weights and analysis, U.S.V.C. will make available upon request of V.C. the diamond drill records and other development data that may accrue during the course of ordinary development and mining of the aforesaid claim or claims.

If V.C. does not require the oxide produced from the ore in the aforesaid claim or claims V.C. may require all shipments of oxide hereunder to be suspended upon three (3) months' written notice to U.S.V.C. and may cause shipments to be resumed upon thirty (30) days' written notice to U.S.V.C. During the time that shipments are suspended U.S.V.C. shall have the right, but shall not be obligated, to continue mining ore and producing fused V_2O_5 therefrom, retaining such ore for future milling and any oxide derived therefrom for future shipments to V.C. The suspension of shipments in any month shall not give V.C. the right to require shipments to be increased in any subsequent month over thirty thousand (30,000) pounds except with the consent of U.S.V.C.

V.C. will pay to U.S.V.C. for mining and milling ore hereunder on the following basis: Sixty-five (65c) cents per pound of V_2O_5 contained as delivered f.o.b. at Bridgeville Plant of V.C.

If the cost to U.S.V.C. of labor, fuel or supplies used in mining ore or producing oxide hereunder should be increased U.S.V.C. may increase the price

Plaintiffs' Exhibit No. 44—(Continued)

to be paid by V.C. hereunder by the amount of such increased cost, by giving three (3) months' prior written notice to V.C. If such increased price is not acceptable to V.C. it may terminate this agreement at the time such increased price is to become effective by giving not less than sixty (60) days' prior written notice of such termination to U.S.V.C.

If at any time U.S.V.C. has not mined sufficient ore belonging to V.C. to produce the oxide required to be delivered to V.C. hereunder, it may deliver such oxide produced from other ore at 65c per pound V_2O_5 as aforesaid, and in such event U.S.V.C. may take title to a quantity of ore subsequently mined by it from the aforesaid claim or claims of V.C. sufficient to produce a quantity of oxide equivalent to the quantity produced from such other ore.

This agreement shall continue for a period of five (5) years from the date hereof unless sooner terminated as herein provided. After termination of this agreement U.S.V.C. shall have the right to produce and deliver oxides to V.C. from any ore mined by U.S.V.C. from the aforesaid claim or claims of V.C. prior to termination. Such deliveries, however, to be taken by V.C. in as nearly equal monthly amounts as possible. If at the time of termination U.S.V.C. has delivered to V.C. any oxide produced from ore other than the ore mined by it from the aforesaid claim or claims of V.C. and has not taken

Plaintiffs' Exhibit No. 44—(Continued)

title to an equivalent amount of ore mined by it from the aforesaid claim or claims of V.C., U.S.V.C., after the termination of this agreement, may mine for itself, and take title to, a quantity of ore from the aforesaid claim or claims of V.C. sufficient to produce a quantity of oxide equivalent to such quantity produced from such other ore and delivered to V.C. V.C. may, at its option, upon giving prior written notice to U.S.V.C., mine such ore itself and deliver such ore to U.S.V.C.

Dated: 6/30/39.

/s/ E. D. BRANSOME,
Pres., Vanadium Corp. of America,

/s/ J. R. VAN FLEET,
V.P., U. S. Vanadium Corp.

PLAINTIFFS' EXHIBIT No. 45

April 7, 1942

Vanadium Corporation of America
420 Lexington Avenue
New York, N. Y.

Gentlemen:

Please find attached the final statement covering the Maggie "C"—Dry Valley production.

This statement shows that the production of ore

Plaintiffs' Exhibit No. 45—(Continued)

in Dry Valley and Maggie "C" has been completed, and the account has been closed and settled.

Yours very truly,

/s/ BLAIR BURWELL,
General Superintendent.

AF/Blair Burwell
USVC
Attach.
bc: Mr. J. R. Van Fleet, Mr. W. G. Haldane, Mr. S. P. Warren.

PLAINTIFFS' EXHIBIT No. 46

[Letterhead of United States Vanadium Corporation.]

September 26, 1941

Vanadium Corporation of America,
No. 420 Lexington Avenue,
New York, New York.

Gentlemen:

In connection with and as part of the delivery of the contract being made between us this date, with respect to the so-called Dry Valley mining claims; we agree that such Agreement settles all claims of ours against you for oxide, and that we will remove all the ore referred to in Paragraph 2 of said Agreement not later than June 1, 1942, subject to delays caused by Acts of God, strikes, labor trou-

Plaintiffs' Exhibit No. 46—(Continued)

bles, accidents, Governmental regulations, or other causes of a similar or different nature beyond our reasonable control, or forfeit all right on that date to remove any more of such ore.

The record of the Custom Milling Account as of September 1, 1941, shows a deficiency of ore from which to recover 294,447 pounds of V_2O_5. We have extracted ore from the Dry Valley property up to September 1, 1941, amounting to 4,177.82 tons containing approximately 120,823 pounds recoverable V_2O_5. The deficit in V_2O_5, therefore, would be 173,624 pounds as of September 1, 1941.

The adjustment of the cost of permanent improvements left on the Dry Valley property had best remain open until the ore to make up the deficiency in V_2O_5 has been extracted. Up to the present time the cost of permanent improvements such as ore bins, roads, etc., has amounted to less than $1,000 and it is not certain just which of these improvements will be of value after the allotted ore has been extracted.

We have discontinued working the Republican, Donald L. and Maggie C. claims, and are turning them back to you for occupancy. We have no further mining rights on these claims.

The total amount of money to be returned to us upon delivery of the Dry Valley agreement is—$41,785.39 made up as follows:

Plaintiffs' Exhibit No. 46—(Continued)

Advance to Leverett Davis, March 31, 1941	$25,000.00
Molybdenum Corporation of America, July 1, 1941	15,000.00
Molybdenum Corporation of America, royalties, September 17, 1941	1,785.39
Total	$41,785.39

The royalty payment to Molybdenum Corporation of America is, of course, an advance on the next payment due under their Agreement dated June 26, 1939.

Very truly yours,

/s/ J. R. VAN FLEET,
Vice President.

EW/J. R. Van Fleet
USVC
O.K. E. D. Burwell.

Agreement made this 26th day of September, 1941, by and between United States Vanadium Corporation, a corporation of the State of Delaware, having an office at No. 30 East 42nd Street, New York, N. Y. (hereinafter called "United States"), party of the first part, and Vanadium Corporation of America, a corporation of the State of Delaware, having an office at No. 420 Lexington Avenue, New York, N. Y. (hereinafter called "Vanadium"), party of the second part:

Plaintiffs' Exhibit No. 46—(Continued)

Witnesseth:

Whereas, by agreement dated March 31, 1941, by and between Leverett Davis, United States and The Vanadium Products Corporation, a copy of which has been delivered to Vanadium, United States acquired from Leverett Davis certain rights in mining claims located in San Juan County, Utah, and in Mesa County, Colorado, described therein, theretofore acquired by The Vanadium Products Corporation from Molybdenum Corporation of America under agreement between said parties dated June 26, 1939, and assigned by said The Vanadium Products Corporation to said Leverett Davis, in consideration of certain payments therefor to be made by United States to said Leverett Davis, as set forth in said agreement; and

Whereas, Vanadium desires to obtain a larger supply of Vanadium ore to enable it to produce Vanadium for National Defense and in view of the needs of Vanadium and of the present emergency United States is willing to transfer to Vanadium its rights in said mining claims upon the terms and conditions hereinafter contained.

Now, Therefore, the parties hereto have agreed and do hereby agree as follows:

1. United States agrees to assign, transfer and set over and does hereby assign, transfer and set over to Vanadium, its successors and assigns, all of the rights acquired by United States under and pursuant to said agreement dated March 31, 1941,

Plaintiffs' Exhibit No. 46—(Continued)

by and between Leverett Davis, United States and The Vanadium Products Corporation in and to the mining claims located in San Juan County, Utah, and in Mesa County, Colorado, described in said agreement, subject to the reservation hereinafter made.

2. United States reserves the right to mine, extract and remove from said mining claims in San Juan County, Utah, sufficient crude ore, which, together with the crude ore heretofore mined by United States from said mining claims, will produce 300,000 pounds of V_2O_5 based on a 75% recovery and to make use of the mill and machinery located on said mining claims for milling such ore, without the payment of any royalty or other charge to Molybdenum Corporation of America or to said Leverett Davis or to Vanadium or to any other person, firm or corporation.

3. United States, its agents, representatives and employees, shall have full right of access to said mining claims and the use of any roads, buildings and other facilities located thereon for the purpose of mining, extracting, milling and removing said ore.

4. Any equipment and machinery heretofore placed on said mining claims by United States may remain thereon and be used by United States until said ore is mined, extracted and removed. All such equipment and machinery heretofore placed on said mining claims by United States shall remain the

Plaintiffs' Exhibit No. 46—(Continued)

property of United States and may be removed by United States from the premises within ninety (90) days after the completion of the removal of said ore.

5. Until the full amount of such crude ore hereby reserved to United States has been mined, extracted and removed by United States from said mining claims Vanadium as assignee of the rights of The Vanadium Products Corporation will permit no default to occur in the obligations of The Vanadium Products Corporation under said agreement dated June 26, 1939, between Molybdenum Corporation of America and The Vanadium Products Corporation.

6. United States agrees to conduct such mining and milling operations in such manner only as is usual and customary in the skillful and proper conduct of work and mining operations of a similar character and in strict accordance with good engineering and mining practice.

7. Within thirty (30) days after the date of the execution of this agreement United States will furnish to Vanadium a statement showing the mineral content and amount of ore heretofore mined by United States from said mining claims and on or before the tenth day of the next calendar month after the execution of this agreement and of each calendar month thereafter United States shall furnish to Vanadium an appropriate statement showing the mineral content and amount of ore mined

Plaintiffs' Exhibit No. 46—(Continued)

from said mining claims and the sales price of such ore sold since the date of execution of this agreement with respect to the first statement and during the next preceding calendar month with respect to subsequent statements.

8. In consideration of the aforesaid assignment Vanadium agrees to pay to United States upon the execution of this agreement the sum of Forty Thousand Dollars ($40,000) representing payments heretofore made by United States to said Leverett Davis under said agreement dated March 31, 1940, and to Molybdenum Corporation of America under said agreement dated June 26, 1939, and to assume, perform and observe all of the obligations and conditions required to be performed or observed by United States and to make all of the payments now due or hereafter required to be made by United States under the terms of said agreement dated March 31, 1941, and to pay to Molybdenum Corporation of America all royalties and other charges payable under the terms of said agreement dated June 26, 1939 with respect to all ore heretofore or hereafter mined by United States from said mining claims pursuant to the reservation herein made and not heretofore paid for by United States. Vanadium further agrees to pay to United States a sum equivalent to the amount heretofore paid or incurred by United States in constructing roads, buildings and other permanent improvements on said mining claims.

9. Each and all of the terms and conditions of

Plaintiffs' Exhibit No. 46—(Continued)

this agreement shall be binding upon and enure to the benefit of the respective parties hereto, their successors and assigns.

In Witness Whereof the parties have executed this agreement as of the day and year first above written.

UNITED STATES VANADIUM CORPORATION

/s/ By J. R. VAN FLEET,
Vice President.

VANADIUM CORPORATION OF AMERICA,

/s/ By E. D. BRANSOME,
President.

PLAINTIFFS' EXHIBIT No. 55

Vanadium Corporation of America
Inter-Office Communication

Boulder, Colorado. Date: October 22, 1939.

To: Mr. Frederick F. Kett, Gen. Mgr. Mining Division, New York.

From: Robert Sterling.

Subject: H. L. Brown-Gateway Mill.

Your letter of October 18th, 1939.

I note that Brown has sent you a sample of his red cake, which you are going to have analyzed.

Like you, I doubt whether he will want to sell his claims—at least until he finds he cannot make a go of it

Plaintiffs' Exhibit No. 55—(Continued)

I should say that the "rough" people he refers to are probably the ones he sold his red cake to. I hardly think the USV would make him any offer. They would rather just break him and run him out of business, though they might want his claims. At that, as far as I know the Calamity group are all they own, and the Gateway Alloys don't own even them. They were bought by one Bowen who seems to have put up the money for them, and who has some money invested in the mill.

I understand that the outfit that is building a mill at Cedar is going to treat the ore by simply dumping the ore-salt mix into a furnace along with coal and then extract the vanadium from the ashes. They have moved the old mill Thurber started to build down at Disappointment, near the Dolores.

S. R. S.

Vanadium Corporation of America
Inter-Office Communication

Date: October 3, 1938.

To: Mr. E. D. Bransome, President.

From: Frederick F. Kett, General Mgr., Mining Division.

Subject: Conversation with Mr. Van Fleet on Friday, September 30, 1938, re Vanadium Plant being built at Gateway, Colorado.

Mr. Van Fleet said that young Brown worked as a draftsman for Burwell at Urvan for a couple of years, up to the end of 1937 more or less.

Plaintiffs' Exhibit No. 55—(Continued)

The idea of a mill at Gateway is something that Brown, Jr. has evolved, as far as Van Fleet knows, without any testing work to speak of. He got his father interested and Brown, Sr. raised $25,000 for the project.

They have no mining property of their own. They figure on buying ore, some of it from Polar Mesa, although not necessarily from Hardinson, since there are several other outfits producing or capable of producing ore at Polar Mesa. Polar Mesa is only some 12 miles airline from Gateway, possibly twice as much by road.

We agreed that the chances for a purely custom mill being a success were not good, also that the process as described by Mr. Sterling sounded exotic.

Mr. Van Fleet was glad to get our information and said he was passing it along to Dr. Haldane.
FFK:DR

PLAINTIFFS' EXHIBIT No. 56

Vanadium Corporation of America
Inter-Office Communication

Date: September 12, 1939.

To: Mr. Robert Sterling, Sr. or Jr., c/o Frank Wilson, Naturita, Colo.

From: Frederick F. Kett, Gen. Mgr., Mining Div. (Air Mail)

We wired you today as per copy enclosed.

Plaintiffs' Exhibit No. 56—(Continued)

Due to the dry season just closing in Peru and the consequent two months annual shutdown of plant, our stocks of oxide in Bridgeville must be immediately supplemented. Our position is particularly acute on account of the war. We have already received a quantity of oxide from the U. S. V., which they claim exceeds any amount which they are likely to get off the Maggie C. Hence the delivery to them of the ore in storage in mill yard, which will release immediately to us a certain additional quantity of oxide.

A further quantity of oxide is still desired by us from the U. S. V., and in order to get this at an early date we will have to turn over something in the way of ore reserves. We may have to allow them to mine a minor amount of the ore from the Buckeye in case we fail to develop in other claims sufficient ore to cover our immediate oxide requirements. We hope that we will not have to do this and that this ore can be developed in some one of our claims at Long Park. In our opinion, the Donold L presents the best prospect for this development, as well as being easily accessible to the U.S.V. through their Cripple Creek workings. We are therefore asking you to drill this claim as quickly as you can and to send drill logs and samples, if any, forward as soon as each hole is finished.

FFK:DR

(Enclos.)

CC Boulder, Colorado.

Plaintiffs' Exhibit No. 56—(Continued)

P. S. All the above does not alter our general policy as regards operations at Naturita.

FFK

Vanadium Corporation of America
Inter-Office Communication

Date: June 26, 1940.
To: Mr. Robert Sterling, Mgr., Boulder.
From: F. F. Kett, Gen. Mgr., Mining Div.
Subject: Naturita—General.
(Air Mail)

The matter of getting back our claims from the USV has not been definitely settled yet; I will advise you immediately as soon as we know one way or the other. In the meanwhile there is nothing we can do about John Blake's lease on the Republican, unless the USV would be willing to let him continue mining on this claim and delivering ore to us. While we have every reason to believe that the sudden drop in values of the ore mined by Blake during May, which drop was coincident with the return of Joe Weston from Utah, was not due to natural causes, still a close study of the drill holes will show that the amount of mill ore is limited and pretty well confined to three patches. We may find that the ore actually has dropped off in value. Anyway we cannot be absolutely positive until we ourselves have received and sampled a quantity of this ore. For the moment just let this whole matter ride until we can clear it up at this end. I fore-

Plaintiffs' Exhibit No. 56—(Continued)

saw that Blake's lease would be cancelled as soon as it was known that he had contracted to us his ore in Little Gypsum Valley. Please note that we do not refer to this area as Silvey's Pocket, which actually it is not.

In case we get these claims back and allow Blake to continue mining on the Republican, I do not think we should give Blake a written lease. I believe he would be perfectly happy to continue mining on the Republican on the same basis that he was mining for the USV and it could be that we ourselves might want to mine that claim, on a somewhat bigger scale than John is prepared to do.

In the last paragraph of Renner's report for week ending June 15, 1940, he asks about the advisability of establishing a stock-pile near Egnar, with installation of a weigh scale. We discussed this question when I was in Naturita and agreed that this question contained considerable dynamite. It would be tantamount to increasing our purchase price schedule of ore delivered to our mill. We agreed that the one thing which we do not want to do is to start on competitive bidding for ore, since there is no question but what we could be outbid, due to the lower processing costs in the USV plant. Also, we would have to put in a sampling plant at the stock-pile, quarters for the sampler, etc. I figure that our investment for all this would be in the neighborhood of $3,500, which of course is not much if spread over a considerable tonnage. I think

Plaintiffs' Exhibit No. 56—(Continued)

we should wait a month or two before making a decision on this, and in any case I cannot see why such a stock-pile should be on the west side of the Dolores River; if it were located on the road anywhere east of Joe Davis Canyon it seems to me we would still be able to pick up the ore that is now going to the USV stock-pile. However, it seems to me that we can think of something better than this: it does not make sense to me to haul this ore part way, dump it, sample it, and then pick it up again and run it to our mill. Even buying our ore mine side would beat this and at the same time not lay us open to the charge of having raised prices.

With regard to detachable bits, we are not going any further in that matter here. Get any bits you like from wherever you like.

Until the USV are prepared to give us quit claim deeds on the Vanadate, Radium King #2 and Radium King #3, I would not give them the drill logs for the drilling on the East Media. Burwell told me in Renner's presence that he had these quit claim deeds with him on his visit to Uravan when I was out there last time.

Bonker says that part of our Bagger workings are over on the Great Western. Please advise whether this trespass is serious or not, or if there is a real trespass. Also, what are the indications for there being any tonnage of milling ore on our side of the line.

Plaintiffs' Exhibit No. 56—(Continued)

What was the final outcome of our dealings with the Gramlichs? The last I heard was that they were continuing to find places where the "shoe pinched."

I hope you are right about being able to hold ground on the basis of tunnel sites. It would be rather embarrassing to pay Scott & Robinett $10,000 for the property and then have somebody take it away from us.

Regarding the 34 claims belonging to Snyder, which are said to be under option to the International Vanadium Co. (Dripping Springs, Arizona). The two men controlling the International Vanadium Co. are Harold S. Lyon and Justin Haynes, both located here in New York. These gentlemen assured me that the International Vanadium Co., to the best of their knowledge, has no interest in these claims. They never heard of them and say that there has not been $750 in the treasury for the purchase of anything much less additional vanadium claims in Colorado, for a long while. They think it is just possible that Hertz may be trying to promote something with some other money obtained from other sources, using the name of the International Vanadium Co. They are investigating this angle and will advise me what they find. Maybe Renner might be able to run this down a little closer at his end; at the moment it looks very much like Snyder was lying about this option.

FFK:DR

PLAINTIFFS' EXHIBIT No. 58

Mr. H. D. Keiser January 22, 1948
Atomic Energy Commission
1901 Constitution Avenue, N. W.
Washington, D. C.

Dear Hugh:

Following our brief but interesting meeting in Washington, I met with John Gustafson in New York on the following day. We covered again in a somewhat brief fashion the subjects which you and I discussed in Washington. John Gustafson did not have a copy of my memorandum, and the talk was limited to the "high spots" of the general Colorado situation. I did have the feeling after this talk that John Gustafson would approach the problem on a sound engineering basis.

Walter Remmers of our Corporation had passed me on his way west, and I found that he was in Grand Junction conferring with Dave Baker and Bob Ridgway as to their pending proposal to the Commission. While in New York I had the opportunity of talking with Jim Rafferty (Vice-President and Director of Carbide) whom you probably remember and other officials of the Carbide Corporation. In particular, I found Mr. Rafferty intensely interested in the situation out West, and I discussed with him the possibility of following out new processing plans for the region. In 1943 this subject was first discussed with Jim Rafferty and General Groves, and Mr. Rafferty is keenly interested in the regional situation today.

Plaintiffs' Exhibit No. 58—(Continued)

Incidentally, I found a strong effort to dissuade me in my intention of leaving Carbide by February, but stuck fast to my original plans to be relieved by February 1.

With Jim Rafferty was arranged a meeting in Niagara Falls on January 15 to discuss the engineering approach to the regional problems. Walter Remmers returned from the West for this meeting which included Dr. Kinzel (Vice-President of Union Carbide & Carbon Research); Joe Brennan, Chief Metallurgist; and Bob Briney, E. Doom and Andy Gailey. This group in general believed that the Process "C" of my chart gave the most favorable answer to the problem of uranium production, as is covered in the attached copy of a letter from Joe Brennan to Walter Remmers.

In the main, there does not seem to be much question as to the engineering approach to the problem of processing the carnotite ores, but most of the questions revolved about the disposal of excess vanadium. In this connection I had an interesting talk with Ted Bransome as a result of a casual meeting which developed into a brief discussion of the western situation. I told Ted that I believe that vanadium could be produced at a by-product price of 65 cents per pound of V_2O_5 from a properly engineered plant with the economies of such a plant and at the same time would produce uranium for the Government at a much lower price than is being considered now. While the price of 65 cents per pound of V_2O_5 would be a God-send

Plaintiffs' Exhibit No. 58—(Continued)

to V. C. A., in view of their present 85-cent cost, the principal concern of T. B. was the possibility that this material would also be available for open market sale at the same price, which might enable competition to enter the ferrovanadium field by way of Continental Ores or other competitors. The price which I had suggested on my chart of 65 cents is a price better than the more favored cost of either of the two companies when producing at their present sales rate. I think it is going to be difficult to compose the warring interests of the vanadium industry and that it is going to take a diplomat of the first water to take care of the reasonable interests of the vanadium industry and yet avoid the ever-present monopoly question which is sited in the present monopoly suit. I have a feeling that John Gustafson will be equal to the job.

One point of interest here is the apparent feeling among those of our Corporation that we should lean backwards if possible in assisting the Commission in its development of the district, rather than crowd the ills and needs of the vanadium industry into the picture at this time.

King Haldane sends his best regards to you with the hope that he will see you out in this country soon.

With personal regards, I am

Sincerely yours,

BLAIR BURWELL.

BB/hjl
Enc.

PLAINTIFFS' EXHIBIT No. 62

[Note: Special Report dated February 20, 1942, Inter-Office Communication dated March 14, 1942 and Special Report dated April 14, 1942 are all read in evidence at pages 672-676 of this printed record.]

Vanadium Corporation of America
Inter-Office Communication

Date: Boulder, Colorado, April 22, 1942.
To: Mr. Frederick F. Kett, Gen'l Manager Mining Division N. Y.
From: Robert Sterling, Manager.
Subject: Your Letter of April 20th.

Kimmerle Report—As long as this matter has come up in the way it has, I think Kimmer*ly* should be put on the spot to prove his statements. Such things do go on, whether at our plants or not, and it generally involves collusion between someone in the plant and some outsider. It would really go hard with them, if anything could be proved. However, all that can be *be* left until you come out.

Sale of Ore to Balsley—There was some doubt in my mind about selling small lots to Balsley except on a cash-on-the-barrel-head basis. Even then, no matter what he promised, I think there would be interminable delay in getting the cash—as, always, in the past. I assume that if any high grade comes into Monticello, it should be held and eventually transferred to Naturita for shipment

Plaintiffs' Exhibit No. 62—(Continued)

from there with any carload of slimes that may be accumulated? In fact any high grade produced at the Yellow Bird may as well go direct to Naturita, and so save transferring it later on? They might run into another "Tree" at any time.

Dry Valley Claims—I have no doubt that the matter of the whereabouts of all the claims in Dry Valley will be cleared up in the course of time, and that there is really nothing to worry about, except to see that the Affidavits of Annual Assessment Work are filed. That is, of course, up to the Moly Corporation, or U.S.V. and can, as you say, be checked up at the Monticello (not Moab) court house. The claims are all in San Juan County.

Ore Prices—Your decision on that matter is definite, so no price changes will be conceded without first getting authority from you. It's rather hard to know how to decide, when the producers tell us these stories about U.S.V. offering more, and then U.S.V. denying it. It is difficult to learn who is lying. Personally, I am inclined to believe the "honest miner."

Property Deal—It is my intention, of course, to advise and consult with you on any property deals. It seems to me the present arrangement should save you a lot of grief and letter writing, as I imagine you have plenty to do without being bothered with something that can be handled perfectly well out here without troubling you.

That $100.00 was paid on an option on the so-

Plaintiffs' Exhibit No. 62—(Continued)

called Hyde claims belonging to Mrs. Hyde and two of her nephews, and which we have been trying to line up ever since last fall. These claims join the Happy Jack, the workings of which are getting pretty close to them. The $100.00 was for 90 day option then $1,000 down, then $500.00 in 90 days, and the balance on a 10% royalty — total price $6,000.00, I have asked Garard for copies of the option.

I have just received from Blitz, copies of the contract he has negotiated with the Waggoners on 15 claims on Carpenter mesa. You have a copy of his letter of April 20th, on the subject. In case he did not send you a copy of the contract, one is enclosed herewith. I shall sign and return them today.

Blitz is very sure there is $3,000.00 worth of positive ore and that we are more than safe in buying them on the terms set out in the contract.

Apex Smelting Co.—It is nice to know that we won't have to worry about them after July 1st.

Norwood Bridge—As you know, the needed steel is to be rolled this month. However, there isn't a chance of the bridge being in place before the high water comes and goes; so we shall just have to pray for the best. The Highway Department seems to be prepared to replace the old one, if necessary.

Moab Bridge—Garard went to Salt Lake and got the Highway Department there to allow a 20-ton load over this bridge. As most of the heavier

Plaintiffs' Exhibit No. 62—(Continued)

stuff has already passed over, the 20-ton load should see us through, until the bridge is strengthened. One would think they could get the necessary priority for the needed steel.

Navajo Indian Reservation—I agree with you, as I said in my letter of April 17th, that there would be no need of tying up more ground on the reservation, until we have found something worth getting. I think then, we could get anything within reason. Garard has established a camp at Tee-nes-pah, having in some way secured the CCC Camp for nothing, and has three or four men prospecting.

ROBT. STERLING.

PLAINTIFFS' EXHIBIT No. 64

Seller--Buyer: Agreement dated the 15th day of May 1940 between Anaconda Copper Mining Company, a corporation of the State of Montana, having an office at 616 Hennessy Building, Butte, Montana, (hereinafter called the "Seller"), and United States Vanadium Corporation, a corporation of the State of Delaware, having an office at No. 30 East 42nd Street, New York, N. Y. (hereinafter called the "Buyer");

Witnesseth:

The parties hereto have agreed and do hereby agree as follows:

That the Buyer has contracted to purchase from

Plaintiffs' Exhibit No. 64—(Continued)

the Seller and the Seller has contracted to sell to the Buyer at the price and upon and subject to the terms and conditions following, viz.:

Material: Vanadium Pentoxide in the form of red cake precipitate.

Specifications: Approximately 94% Vanadium Pentoxide (V_2O_5); not over .02% Phosphorus (P); not over .01% Arsenic (As); not over .005% Lead (Pb); approximately 8.00% Soda; not over .25% Sulphur (S).

Quantity: The entire production of said material of Seller's plant at Anaconda, Montana, for a period of two years beginning January 1, 1941 and ending December 31, 1942. The Buyer shall have no obligation to purchase in excess of 200,000 pounds in each calendar year, but shall have an option to purchase any part or all of Seller's production in excess of 200,000 pounds in each calendar year.

Price: Seventy cents (70c) per pound of contained Vanadium Pentoxide (V_2O_5).

Mode of Delivery: F.o.b. cars at Columbiana, Ohio, or Grand Junction, Colorado, at Buyer's option, in carload lots.

Terms of Payment: Payment shall be made on or before the 15th day of each calendar month for all material delivered during the preceding calendar month.

In Witness Whereof the parties have executed

Plaintiffs' Exhibit No. 64—(Continued)

this agreement as of the day and year first above written.

Signed at Butte, Montana.

[Seal] ANACONDA COPPER MINING COMPANY,

/s/ By D. M. KELLER,
Vice President.

Attest:

/s/ By [Illegible]
Assistant Secretary.

[Seal] UNITED STATES VANADIUM CORPORATION.

/s/ By J. R. VAN FLEET,
Vice President.

Attest:

/s/ By A. C. CONNELL,
Secretary.

United States Vanadium Corporation
Carbide and Carbon Building
30 East Forty-Second Street, New York

December 1, 1942

Anaconda Copper Mining Company,
616 Hennessy Building,
Butte, Montana.

Dear Sirs:

We desire to confirm the arrangement made with your Mr. F. O. Case, as follows:

Plaintiffs' Exhibit No. 64—(Continued)

The agreement between us dated the 15th day of May, 1940, relating to the sale by you and the purchase by us of vanadium pentoxide in the form of red cake precipitate, is hereby amended by striking out the first sentence of paragraph captioned "Quantity" and by substituting for said sentence the following words—"The entire production of said material of Seller's plant at Anaconda, Montana, for a period of six years beginning January 1, 1941 and ending December 31, 1946".

All other conditions of said agreement of May 15, 1940, shall remain in full force and effect as though set forth at length herein.

If the foregoing meets with your approval, will you kindly signify your acceptance on one copy of this letter and return the same to us and the said agreement will be deemed amended accordingly.

Yours very truly,

UNITED STATES VANADIUM CORPORATION,

/s/ By J. R. VAN FLEET,
Vice President.

Accepted:

ANACONDA COPPER MINING COMPANY,

/s/ By D. M. KELLER,
Vice President.

PLAINTIFFS' EXHIBIT No. 68

Inter-Company Correspondence

Company: United States Vanadium Corp.
Location: New York City.
Date: September 1, 1938.
To: Mr. W. G. Haldane, Supt.
Location: United States Vanadium Corp., Uravan, Colorado.
Copy to: Mr. Blair Burwell, Uravan.
Subject: Sludge, Vanadium.
Air Mail.
Confidential.

Dear King:

Electro Metallurgical Company has developed a a new alloy containing mostly vanadium and silicon, which is used in reducing or cleaning steel. The practice now in some of the steel manufacture is to use about two (2) pounds of aluminum metal per ton of steel, which controls the grain size in the steel. Vanadium will do this job a great deal better with no ill effects if the control is not absolute, and coupled with metallic silicon it does an admirable job. Some of this alloy has already been made and a great deal of interest has been shown.

You will recall, or at least I recall talking with Blair, about the possibility of preparing a vanadium product containing silica, alumina and iron, which could be very cheaply done. I had in mind somewhere around 25c to 30c per pound for the contained V_2O_5. A vanadium product such as this,

Plaintiffs' Exhibit No. 68—(Continued)

could be reduced directly in the electric furnace with the proper fluxing, resulting in the desired alloy. Fused V_2O_5 can also be used with the proper additions of quartzite, alumina, etc., but for the present at least, we will not be able to use*d* fused oxide, because we cannot charge the regular price for vanadium in the alloy. It is considered that this condition will not last over a great period of time, and that we ultimately can use the fused oxide and charge the regular price for vanadium in the alloy.

I am very anxious to supply such a material and it looks like the sludge "B" would answer the purpose. It seems to have rather an excess of alumina, but this can be balanced by the addition of quartzite and, possibly, a little more vanadium in some more concentrated form. The alloy should contain 5% V. This business could, probably, be worked into sales amounting to 1,000,000 to 2,000,000 pounds V_2O_5 annually, and is worth going after.

In looking over the notes on the sludge, I note that it costs approximately $3.00 per ton to treat one (1) ton of the old tailings. If we allow 50c per pound for the seven (7) pounds of U_3O_8 recovered from the "A" sludge, it would appear that the U_3O_8 recovered would pay for the operation and we could afford to foster this business and supply the "B" sludge for as little as 25c or 30c per pound V_2O_5, making an additional profit on the sale of uranium.

Plaintiffs' Exhibit No. 68—(Continued)

I would like to know what the cost of removing most of the uranium from the "A" sludge is, and I wish you would sharpen your pencil and see what you can figure out in producing something to fill this bill. I realize that the amount of tailings are limited and that we are not getting much return, but we would not have to continue furnishing this sludge for this purpose for any great length of time and, eventually, fused oxide will be used.

Confidentially, the reason why we must use some product other than fused oxide in this alloy to start with, is that we cannot sell vanadium for less than the market price, unless we can show that we do not use fused oxide and that we are using an impure by-product which cannot be used in any other way. For several years I have been trying to have the sales price of vanadium considerably reduced, and this would be an entering wedge. It has always been my opinion that if we were able to reduce the sales price of vanadium, it would encourage its use.

Very truly yours,

/s/ J. R. VAN FLEET.

EW/J. R. Van Fleet
IC

PLAINTIFFS' EXHIBIT No. 69

Vanadium Corporation of America
Inter-Office Communication

Date: June 26, 1941.
To: Mr. E. D. Bransome, President.
From: F. F. Kett, Gen. Mgr., Mining Div.
Subject: Dry Valley Ore—USV.

I called on Mr. Van Fleet at his office yesterday. Mr. Burwell was also there.

Burwell seemed quite surprised that there had been any talk about division of the Dry Valley ore; he claimed that that was the first he had heard of it. He said that his report on the possibility of rehabilitation of their old plant at Rifle, Colorado, had counted on the Dry Valley ore, in connection with some ore which remained in the old Rifle deposits, as the ore supply for this rehabilitated plant.

I said that I had understood our conference was not for the purpose of deciding whether we would get half of the Dry Valley ore or not; that I thought this question had been decided and that I was there simply to arrange the details of stockpiling and payment. Van Fleet then told Burwell that there was no question at all about his having definitely promised us half of the ore, and that if we insisted we would have to get it. However, Van Fleet did say that delivery to us of half of this tonnage would no doubt put a serious kink in their Rifle operations.

Van Fleet wanted to know if our operations at

Plaintiffs' Exhibit No. 69—(Continued)

Naturita would be seriously hampered right now if we did not get this ore. I told him that this was not the case and that we intended to stock-pile the ore for the moment until such time as it was convenient for us to haul it. I did not say where we might haul it, but he naturally assumed that our idea was to haul it to Naturita.

Van Fleet said that the overall picture as regards their vanadium production was very different now to what it was at the time he promised us delivery of half of this Dry Valley ore, that they were being pressed very hard for production and that this ore had now become a vital necessity for them for immediate use. He suggested that we let the question remain open for the moment since he wanted to confer with his officials. He was to get in touch with you today or tomorrow before I left for Colorado, if possible.

/s/ F. F. KETT.

FFK:DR

CC PJG

PLAINTIFFS' EXHIBIT No. 70

Vanadium Corporation of America
Inter-Office Communication

Date: Boulder, Aug. 31st, 1941.
To: Mr. E. D. Bransome, Pres.
From: F. F. Kett, Gen. Mgr. Mining Div.
Subject: Utah Vanadium.

It is possible that Van Fleet may present some sort of concrete proposal on the subject of the Dry Valley contract assignment, before my return to N. Y. from Colorado.

It occurs to me that it may be that Dry Valley possibly is looking very sick right now and that the probability of getting even 10,000 tons from it may be very slim. This is probably not so, but it could happen.

Therefore, I think that either you or Mr. Gibbons should phone Van and suggest that his proposal embody the following:

(1) The 10,000 tons (or rather 300,000# of recoverable V_2O_5) to be taken from the property before June 1st, 1942. If this amount is not taken from the property before that date, than our obligations to return them any further ore in liquidation of the 300,000# of oxide are cancelled.

(2) The claims now held by them at Long Park (Maggie C, Donald L and Republican) to be turned back to us in any case, immediately upon assignment to us of the Dry Valley contract.

I am afraid that if we do not specifically men-

Plaintiffs' Exhibit No. 70—(Continued)

tion the above two points, they may drag the work and at the end of a year claim that there is no more profitable ore in sight, or if there is that it will take additional time to get it out. In which case we will have to pay another $15,000 to Moly to protect our investment, whether we like it or not.

In they really think there is at least 10,000 tons in sight and that they will get it out in the next 8 months, they should have no objection to turning back the Long Park claims at once.

We should make the date June 30th, as above, so we will have 30 days to make up our minds what to do, before having to make the payment to Moly.

Conger is looking pretty good, also the Spider Leg; Double Header looks like a flop. We will be leaving here tonight for Montecello.

/s/ F. F. KETT.

PLAINTIFFS' EXHIBIT No. 71

Vanadium Corporation of America
Inter-Office Communication

Date: Boulder, Colorado, June 13, 1940.
To: Mr. Frederick F. Kett, New York Office.
From: Robert Sterling.
Subject: Naturita—Oscar Krabbe Properties.

I have forwarded your letter of June 11th to Renner. If he has not arranged for Krebbe to

Plaintiffs' Exhibit No. 71—(Continued)

come over to Naturita by the time I get down there next week, I will get in touch with him. Since he used to work for me at Fall Creek, I may be able to get a better deal out of him.

I agree with you that this matter should be closed as soon as possible — before someone puts other ideas in his head.

We may be up against the USV ore stockpiling at the Mesa Vanadium mill, in which case, we shall have to make some concession on the truck haul.

Garard was in yesterday and said USV "says" they are paying only $2.00 haul from that area, which means, of course, that they are making an allowance somewhere along the line to make up the difference. Why should we attempt to work with that outfit at all?

If we can enter into Krabbe's picture by furnishing help in some way on a road, as you suggest, or otherwise, we can sew up his ground and output. His original proposition to me, you will remember, was to help him develop it by diamond drilling; perhaps we can work out something along those lines. Unless we should greatly increase our own trucking facilities, so we can haul this far away ore ourselves, it looks like we will have to stockpile ourselves, somewhere in that area, even if it raises the cost of oxide 5c a pound.

S. /s/ W. B.

PLAINTIFFS' EXHIBIT No. 72

Inter-Company Correspondence

Company: U. S. Vanadium Corporation.
Location: Uravan, Colorado.
Date: December 27th, 1941.
To: Mr. W. G. Haldane.
Location: New York City.

Dear King:

I have yours of the 24th regarding Mr. Kett's protest against my bidding on a Mr. Lyen's ore.

This is evidently only an attempt by Lyen to push the V.C.A. up on their price for the ore. I have never met Lyen, nor had any correspondence with him. I do, however, know something of his record. He worked for the North Continent, and Slim Lundquist advised me he was a trouble-maker and was discharged. Later, he had a lease on the Martin-Coefield property which resulted in trouble, and he was removed by Luther Watt. At present he has a lease on the Mucho Grande claim in the Mae Williams group.

John Hill advises that Lyen called at this office recently while I was in Dry Valley, and stated that he would like to sell us some ore and that he was furnished with our regular list prices, and definitely was not offered $2.00 per ton over these established rates.

Yours very truly,

/s/ J. E. WESTON (MC).

J. E. Weston.mc

[Handwritten note: O.K. on going into Dry Valley provided does not interfere.]

PLAINTIFFS' EXHIBIT No. 73

E. M. Company—New York

Mr. S. C. DuTot
E. M. Sales Corporation
Pittsburgh, Pa.

May 10, 1944

Messrs: P. S. Lewis, W. E. Remmers, R. J. Portmann.

Confidential.

Dear Baldy:

We were discussing this morning the follow up work Carl de Laval has been doing on calcium tungstate briquets, with and without a combined reducing agent, in accordance with your letter of April 13 and my reply of April 17. It was decided that for the present we should discourage making briquets with any form of reducing agent, and not push the sale of calcium tungstate nuggets beyond the sale of our present stock of 13,000 to 14,000 pounds of contained tungsten in nugget form.

We are, however, anxious to sell the stock we have on hand.

There are several reasons for our having made this decision. We are selling ferrotungsten and tungsten metal powder far in excess of our own supplies of tungsten ore, and to meet this demand we are purchasing large amounts of ore from Metals Reserve. We are fearful that the trend in supplying ores with combined reducing agents will lead to direct reduction of other metals such as

Plaintiffs' Exhibit No. 73—(Continued)

vanadium, columbium, and chromium. As a matter of fact, we have recently refused to supply vanadium oxide and columbite with combined reducing agents on the ground that we are primarily in the ferro-alloy business and are not interested in the sale of ores, especially when we can make use of our large smelting facilities. You can readily understand that we do not want to promote any practice in steel making that would be in competition with our own ferro-alloy business, which we would be doing if we encouraged the reduction of metals from ores by steel makers.

We may have to sacrifice some business which would go to the people who sell ore in any event, but we will not be breaking down our own business which is smelting ores into ferro-alloys. It will be our task to convince our customers that the most practical and economical way to make steel is to use ferro-alloys.

I have written you at length on this subject so you will understand the reason for making this policy.

Very truly yours,

/s/ W. J. P.

WJP/MHB

PLAINTIFFS' EXHIBIT No. 74

TOLL AGREEMENT

This Agreement, made and entered into as of the 26th day of January, 1943, by and between United States Vanadium Corporation, a corporation duly organized under the laws of the State of Delaware and having an office at 30 East 42nd Street, New York, New York, as Agent for Metals Reserve Company (hereinafter sometimes called "Agent"), and Frank Nisley, Grand Junction, Colorado, and Hays C. Wilson, Rifle, Colorado, a partnership doing business as Nisley & Wilson, as Lessees of the vanadium ore treatment plant at Gateway, Colorado, formerly owned by Gateway Alloys, Inc. (hereinafter called "Lessees"):

Witnesseth:

Whereas, Metals Reserve Company was duly organized as an agency of the Government of the United States to assist in the National Defense Program by producing, acquiring, carrying, selling or otherwise dealing in critical and strategic materials, such as vanadium; and

Whereas, by that certain Vanadium Agency Agreement, dated as of May 9, 1942, between United States Vanadium Corporation and Metals Reserve Company, Metals Reserve Company appointed United States Vanadium Corporation as its Agent to purchase vanadium ores suitable for treatment in, and to supply such ores to, such vanadium ore treatment plants as Metals Reserve Company should designate; and

Plaintiffs' Exhibit No. 74—(Continued)

Whereas, Metals Reserve Company has designated the vanadium ore treatment plant at Gateway, Colorado, formerly owned by Gateway Alloys, Inc. (hereinafter called the "Gateway Plant"), and under lease to Lessees from the present owner, H. I. Gardner, as one of the vanadium ore treatment plants to be supplied with vanadium ore by Agent under said Agency Agreement, and has authorized Agent to enter into this Agreement; and

Whereas, Lessees are willing to treat vanadium ore supplied by Agent and to return to Agent all fused vanadium oxides and tailings produced therefrom, upon the terms and conditions hereinafter set forth;

Now, Therefore, in order to make possible the continued production at the Gateway Plant of fused vanadium oxides necessary for war effort, and in consideration of the mutual promises and agreements herein mutually covenanted and agreed by and between Agent and Lessees, the parties have agreed and do hereby agree as follows:

1. Definitions. Wherever used in this Contract unless otherwise specifically defined,

(a) The term "ton" means a dry short ton of 2,000 pounds, avoirdupois;

(b) The term "pound" means a pound avoirdupois;

(c) The term "ore" means vanadium ore purchased by Agent pursuant to said Agency Agreement dated as of May 9, 1942, and containing not

Plaintiffs' Exhibit No. 74—(Continued)

less than 1.50% V_2O_5 as calculated by weighted averages during any one settlement period.

(d) The term "vanadium oxide" means fused vanadium oxides produced by Lessees at said Gateway Plant from ore delivered hereunder by Agent.

2. Term. This Agreement shall commence on the day when sufficient ore to commence milling operations shall be delivered by the Agent to Lessees, and shall continue for a period of ninety (90) days from that day, or until this Agreement is cancelled, but in no event beyond July 28, 1943, unless a subsequent agreement is entered into between the parties.

3. Material. All ore treated by Lessees during the term of this Agreement shall be ore delivered by Agent to Lessees for treatment hereunder. Nothing herein contained shall ever be construed as passing to Lessees any title or interest in the ore delivered to them, or to the vanadium oxide to be delivered by them, to Agent.

4. Delivery of Ore and Quantity. Agent agrees to use its best endeavors to deliver to Lessees, at their Gateway plant, quantities of ore sufficient to operate said plant at full capacity during the term hereof, and it is estimated that the quantity of ore required for this purpose will be approximately 20 tons each 24 hours.

5. Weighing, Sampling and Analysis of Ore. Ore shall be delivered by Agent at Agent's Sampling Plant at Lessees' Mill in lots of approximately 20

Plaintiffs' Exhibit No. 74—(Continued)

tons each. Each lot shall be weighed and sampled at Lessees' expense promptly after delivery in accordance with standard practice and in the presence of a representative of Agent, whose services shall be paid for by Agent. Lessees may accept Agent's weights and samples, in which event Lessees will be furnished weight tickets and sample pulp. It is agreed that when Lessees do not desire to accept Agent's samples, the samples so taken by the parties hereto shall be divided into three (3) parts, one to be retained by Lessees, one to be retained by Agent and one to be sealed and held by Agent as the umpire sample. Lessees' sample shall be assayed promptly by Lessees' analyst and copies of the resulting analysis shall be furnished promptly to the Agent. Such analysis shall be binding upon the parties and shall be taken as the basis for the treatment charges hereunder, unless within five (5) days after receipt of such analysis, Agent shall deliver to the Lessee a written request for analysis of the umpire sample. In such event, the umpire sample shall immediately be delivered by Agent to the umpires as specified and directed on the attached umpire list, as mutually agreed upon, for assay, and the umpire assay shall be taken as correct in carrying out the provisions of this agreement. The cost of the umpire assay shall be borne by the party whose assay is furtherest from the umpire.

6. Treatment of Ore, and Delivery of Vanadium

Plaintiffs' Exhibit No. 74—(Continued)

Oxide and Tailings. Lessees agree to operate the Gateway Plant at full capacity during the term hereof, to receive and treat at said Plant all ore delivered hereinunder by Agent and thereafter to return to Agent, suitably sacked in bags properly and legibly marked and securely fastened at said Plant, without cost to Agent, and to be delivered as hereinafter set forth, all vanadium oxide produced from such ore, the vanadium pentoxide (V_2O_5) content of which shall not, in the aggregate, be less than 70% of the vanadium pentoxide content of the ore so treated, determined as provided in Paragraph 5 hereof. In addition, Lessees agree to store at the Plant, in a suitable storage area, all tailings resulting from the treatment of ore hereunder, without charge to the Agent, and to hold such tailings for disposal by the Agent as the Agent may specify in writing. Lessees shall deliver to Agent in respect to all tailings so stored, Storage and Ownership Certificates in the form hereto attached and marked Exhibit A.

7. Treatment Charges and Payment. The treatment charges for ores treated by Lessees hereunder shall be based upon the vanadium pentoxide recovered from the ore and delivered to the Agent and shall be as follows:

85c per pound of vanadium pentoxide contained in the vanadium pentoxide produced from ores having a vanadium pentoxide content of 1.50% with a reduction of 0.1c per pound for each 0.01% in-

Plaintiffs' Exhibit No. 74—(Continued)

crease in vanadium pentoxide content in said ore up to 2.00%.

80c per pound of vanadium pentoxide contained in the vanadium pentoxide produced from ores having a vanadium pentoxide content of 2.00% or more, with a reduction of 0.2c per pound for each 0.01% increase in vanadium pentoxide content over 2.00%.

On the 15th day and the 30th day of each and every month hereafter during the term of this Toll Agreement, or any subsequent Toll Agreement, the Agent will pay to the Lessees 90% of the treatment charges for vanadium oxide produced during the preceding half month period. On or before the 10th day of each and every month hereafter during the existence of this Toll Agreement, or any subsequent Toll Agreement which may be made by the parties, final settlement for treatment charges for the preceding month shall be made, and shall be based upon the weighted average vanadium pentoxide content of vanadium oxide delivered hereunder during such month. Within 10 days after the end of each such period, Lessees shall deliver to Agent a statement showing in detail the tonnage and vanadium pentoxide content of ore treated hereunder during such period, the weighted average grade thereof, the vanadium pentoxide produced and delivered, and the total treatment charge in accordance with the foregoing. After verification of such statement, Agent shall promptly pay to

Plaintiffs' Exhibit No. 74—(Continued)

Lessees the total treatment charges set forth therein.

* * * * *

13. Standard Provisions. The parties agree that the provisions set forth in Exhibit B attached hereto are made a part of this Contract with the same force and effect as if fully set forth herein; Lessees being referred to in said Exhibit B as "Contractor" and Agent being referred to therein as "Metals Reserve".

In Witness Whereof, the parties hereto have caused this Agreement to be executed in triplicate in their names as of the day and year first above written.

Executed in Triplicate.

UNITED STATES VANADIUM CORPORATION as Agent for Metals Reserve Company, By

/s/ J. R. VAN FLEET,
Vice President.

FRANK NISLEY AND HAYS C. WILSON, a partnership doing business as NISLEY & WILSON, By

/s/ FRANK NISLEY JR.,
General Partner,
/s/ HAYS C. WILSON,
General Partner.

* * * * *

PLAINTIFFS' EXHIBIT No. 79

		"INC. OF VANA"											
		ETT MATERIA											
								BANK OF CUSTOMER					
2/1/43	7140.714		Vanadic Acid		1.10		7854.79	Allegheny Ludlum Steel Corporation					
10/25/40		748.8	Ferro Vanadium			2.70	2021.76	Shaeburn Alloy Steel Corporation					
11/9/40		1289.08	"	"		2.70	3480.53	"	"	"	"	"	
12/6/40		1684.03	"	"		2.70	4546.88	"	"	"	"	"	
12/23/40		927.63	"	"		2.70	2504.60	"	"	"	"	"	
12/31/40		4642.46	"	"		2.70	12534.64	"	"	"	"	"	
1/6/41		708.44	"	"		2.70	1912.79	"	"	"	"	"	
2/1/41		1203.36	"	"		2.72	3273.14	"	"	"	"	"	
2/13/41		2802.96	"	"		2.72	7624.05	"	"	"	"	"	
3/31/41		1003.73	"	"		2.75	2760.26	"	"	"	"	"	
4/15/41		1000.49	"	"		2.75	2751.35	"	"	"	"	"	
5/21/41		1095.9	"	"		2.75	3013.73	"	"	"	"	"	
5/29/41		903.12	"	"		2.75	2483.58	"	"	"	"	"	
6/30/41		1000.54	"	"		2.75	2751.49	"	"	"	"	"	
7/31/41		718.5	"	"		2.75	1975.88	"	"	"	"	"	
8/16/41		1161.7	"	"		2.75	3194.44	"	"	"	"	"	
8/30/41		723.8	"	"		2.75	1990.45	"	"	"	"	"	
9/25/41		389.24	"	"		2.75	1070.41	"	"	"	"	"	
12/3/41		2014.88	"	"		2.75	5540.92	"	"	"	"	"	
3/12/42		1000.	Van-Ba			2.30	2300.00	"	"	"	"	"	
4/17/42		1000.	"			2.30	2300.00	"	"	"	"	"	
4/22/42		500.	"			2.30	1150.00	"	"	"	"	"	
?		500.	"					"	"	"	"	"	

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DATE	QUANTITY V205	QUANTITY V	MATERIAL	PRICE V205	PRICE V	AMOUNT	NAME OF CUSTOMER
9/7/40		767.8	Ferro Vanadium		2.75	2111.45	Henry Disston & Sons, Inc.
11/29/40		752.3	" "		2.75	2068.83	" " " " " "
12/13/40		719.3	" "		2.75	1978.08	" " " " " "
2/1/41		767.8	" "		2.75	2111.73	" " " " " "
3/7/41		753.6	" "		2.75	2072.40	" " " " " "
3/25/41		763.4	" "		2.75	2099.35	" " " " " "
3/31/41		756.1	" "		2.75	2079.28	" " " " " "
5/28/41		742.6	" "		2.75	2042.15	" " " " " "
6/19/41		762.4	" "		2.75	2096.60	" " " " " "
7/31/41		718.5	" "		2.75	1975.88	" " " " " "
8/14/41		731.1	" "		2.75	2010.53	" " " " " "
9/25/41		707.7	" "		2.75	1946.18	" " " " " "
4/16/41		152.34	" "		2.80	426.55	Jessop Steel Company
5/12/43		500.536	" "		2.80	1401.50	" " " "
6/14/43		2000.4	" "		2.80	5601.05	" " " "
12/19/40		734.9	" "		2.75	2020.98	Latrobe Electric Steel Company
2/1/41		3760.5	" "		2.75	10341.38	" " " " "
2/13/41		1323.62	" "		2.75	3639.96	" " " " "
3/12/41		4695.26	" "		2.75	12911.97	" " " " "
4/19/41		1297.58	" "		2.70	3503.47	" " " " "
3/31/41		304.74	" "		2.75	838.04	" " " " "
5/31/41		5703.47	" "		2.75	15684.53	" " " " "

PAGE THREE Plaintiffs' Exhibit No. 79--(Continued)

DATE	QUANTITY (Lbs)	QUANTITY ¥	MATERIAL	PRICE (Lbs)	PRICE ¥	AMOUNT	NAME OF CUSTOMER
4/15/41		161.66	Ferro Vanadium		2.75	444.57	Latrobe Electric Steel Company
5/5/41		3029.20	" "		2.75	8302.80	" " " " "
5/29/41		1819.14	" "		2.75	5002.64	" " " " "
5/29/41		2180.18	" "		2.70	5886.49	" " " " "
6/23/41		2833.28	" "		2.70	7649.86	" " " " "
7/3/41		1885.73	" "		2.75	5185.76	" " " " "
7/31/41		2874	" "		2.75	7903.50	" " " " "
8/14/41		4096.36	" "		2.75	11258.94	" " " " "
8/30/41		1146.11	" "		2.70	3094.30	" " " " "
8/30/41		645.3	" "		2.75	1774.58	" " " " "
9/25/41		4193.12	" "		2.75	11531.08	" " " " "
10/9/41		161.58	" "		2.75	444.35	" " " " "
10/9/41		555.955	" "		2.70	1501.08	" " " " "
11/5/41		4444.045	" "		2.70	11998.92	" " " " "
11/5/41		17.475	" "		2.75	48.06	" " " " "
7/11/42		510	Van-Ox		2.35	1198.50	" " " " "
2/2/42		4940.33	Ferro Vanadium		2.75	13585.91	" " " " "
2/25/42		990.96	" "		2.80	1653.57	" " " " "
2/25/42		42.195	" "		2.75	116.04	" " " " "
2/26/42		649.412	" "		2.80	1818.35	" " " " "
2/27/42		640.89	" "		2.80	1794.49	" " " " "

Plaintiffs' Exhibit No. 70--(Continued)

DATE	QUANTITY V205	QUANTITY V	MATERIAL	PRICE V205	PRICE V	AMOUNT	NAME OF CUSTOMER
3/31/42		4180.54	Ferro Vanadium		2.80	11705.51	Latrobe Electric Steel Company
3/20/42		828.73	" "		2.80	2298.04	" " " " "
3/20/42		491.93	" "		2.80	1377.40	" " " " "
3/17/42		1307.30	" "		2.80	3660.44	" " " " "
3/13/42		1317.21	" "		2.80	3688.19	" " " " "
3/10/42		1205.91	" "		2.80	3376.55	" " " " "
3/6/42		497.652	" "		2.80	1393.43	" " " " "
3/6/42		114.642	" "		2.80	321.00	" " " " "
3/6/42		616.476	" "		2.80	1726.13	" " " " "
3/4/42		609.10	" "		2.80	1705.48	" " " " "
3/3/42		656.48	" "		2.80	1838.14	" " " " "
3/2/42		622.44	" "		2.80	1742.83	" " " " "
4/21/42		5834.5	" "		2.80	16340.05	" " " " "
5/29/43		2000.42	" "		2.80	5601.18	" " " " "
6/14/43		2000.4	" "		2.80	5601.12	" " " " "
11/18/43		4000.7	" "		2.80	11201.96	" " " " "
1/28/44		1470.52	" "		2.80	4117.46	" " " " "
1/1/43	7149.714		Vanadic Acid	1.10		7864.79	Allegheny Ludlum Steel Corporation
5/20/41		748.6	Ferro Vanadium		2.80	2096.08	Timken Steel Works
6/7/43		70.3	" "		2.80	196.84	Republic Steel Corporation
6/7/43		58	Vanadium Silicide		2.80	162.40	" " "
10/8/40		362.10	Ferro Vanadium		2.75	995.78	Simonds Saw and Steel Company

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DATE	QUAN. ITY [illegible]	QUANTITY	MATERIAL	PRICE [illegible]	PRICE	AMOUNT	NAME OF CUSTOMER
11/27/40		7.676	Ferro Vanadium		2.70	20.74	*Universal Cyclops Steel Corporation
12/3/40		73.86	" "		2.70	199.42	*Valley Steel Casting Company
2/17/41		77.86	" "		2.75	214.12	" " " " "
3/21/41		78.27	" "		2.75	215.24	" " " " "
4/24/41		77.39	" "		2.80	216.69	" " " " "
4/28/41		154.78	" "		2.80	433.38	" " " " "
10/23/40		38.56	" "		2.70	208.22	*Vulcan Crucible Steel Company
3/11/41		500.87	" "		2.75	1377.39	" " " " "
3/31/41		502.60	" "		2.75	1382.15	" " " " "
4/18/44		5.8	Vanadium Silicide		2.90	16.82	Mechanite Metal Corporation
3/20/44		29	" "		2.90	84.10	East Akron Casting Company
3/2/42		2000	Van-Ex		2.40	4800.00	*Atlas Steels Limited
3/13/42		3000	"		2.40	7200.00	" " " "
3/27/42		5000	"		2.40	12000.00	" " "
4/27/42	Jun 159	5000	"		2.40	12000.00	" " "
5/14/42		4200	"		2.40	10080.00	" " "
5/21/42		2925	"		2.40	7020.00	" " "
6/4/42		2875	"		2.40	6900.00	" " "
6/17/42		4665	"		2.40	11196.00	" " "
7/3/42		5335	"		2.40	12804.00	" " "
7/11/42		4170	"		2.40	10008.00	" " "
8/17/42		3000	"		2.40	7200.00	" " "

Plaintiffs' Exhibit No. 79--(Continued)

	QUANTITY 2T	QUANTITY V	MATERIAL	PRICE V205	PRICE V	AMOUNT	NAME OF CUSTOMER
8/[illegible]/42		6615	Van-Ox		2.40	15876.00	Atlas Steels Limited
9/17/42		2160	•		2.40	5184.00	• • •
9/26/42		1920	•		2.40	4608.00	• • •
10/12/42		3000	•		2.40	7200.00	• • •
11/11/42		2160	•		2.40	5184.00	• • •
12/15/42		2280	•		2.40	5472.00	• • •
12/17/42		2640	•		2.40	6336.00	• • •
1/1/43		240	•		2.40	576.00	• • •
5/29/44		1440	•		2.25	3240.00	• • •

• All items marked • denote that the material, although sold by Continental Ore Company, was billed by the Apex Smelting Company, Chicago.

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PLAINTIFFS' EXHIBIT No. 110

This Agreement made the 4th day of January, 1944 by and between Imperial Paper and Color Corporation, a domestic corporation having its principal place of business in the Town of Queensbury, Warren County, New York, (hereinafter called Imperial) party of the first part, and Henry J. Leir, E. D. Leir and L. Schloss, co-partners doing business under the style and firm name of Continental Ore Company, 500 Fifth Avenue, New York, N. Y. (hereinafter called the Ore Company) party of the second part, Witnesseth:

Whereas Imperial is or may be engaged in the manufacture of vanadium products as a principal, and desires to arrange for the cooperation of the Ore Company as selling agent, and

Whereas the Ore Company is willing to accept such undertaking,

Now Therefore, in consideration of the premises and the mutual covenants contained herein, the parties agree as follows, to wit:

1. The Ore Company agrees to cooperate with Imperial in connection with the manufacture of vanadium products including but not limited to vanadium oxide and ferro vanadium, and to put at its disposal all technical and engineering information and data in the possession of the Ore Company, and to consult with Imperial with reference to the availability of raw material, the metallurgical or chemical processes to be employed, and as to the extent of the market for the finished products. The Ore Company further agrees that it will re-

Plaintiffs' Exhibit No. 110—(Continued)

port to Imperial all changes in market conditions and the development of new sources of supply for raw material etc. both in the domestic and foreign markets.

2. Imperial hereby appoints the Ore Company its exclusive sales agent for all the products mentioned above and produced by it during the term of this contract and authorizes the Ore Company to sell the entire output of these materials, subject to the then existing governmental regulations, at the market price as fixed by Imperial. If the Ore Company shall procure an order from a customer whose credit standing is not satisfactory to Imperial, Imperial shall give notice that it does not approve the credit and Imperial shall not be obligated to accept and ship any such order, unless the Ore Company shall guarantee the payment for any material shipped upon such order. All sales will be made in the name of Imperial and will be invoiced by Imperial direct to the various customers to whom shipment is made. Copies of all orders and important correspondence passing between the Ore Company and the customers will be supplied promptly to Imperial.

3. It is agreed that in consideration of the information hereto supplied and hereafter to be supplied and of the services heretofore rendered and hereafter to be rendered, that Imperial will pay to the Ore Company a sales commission of two and one-half (2½%) percent on the net price of the products, after all discounts, sold to domestic cus-

Plaintiffs' Exhibit No. 110—(Continued)

tomers and five (5%) percent on the net price of the product, after all discounts, sold to foreign consumers. The net sales price in each case shall be the price F. O. B. Glens Falls, New York, or such other point of production as shall be selected by Imperial. On sales to foreign consumers, the sales agent shall not be entitled to receive the increase of two and one-half (2½%) percent commission over domestic sales unless the net sales price F. O. B. point of production after all discounts shall exceed by at least two and one-half (2½%) percent the then current price to domestic consumers. Such commissions will be paid monthly on or before the 10th day of the month following the month in which payment for shipments shall have been made.

4. Imperial agrees to install the equipment necessary to manufacture the vanadium products above mentioned, and will use its best efforts to make the business of manufacturing and selling such products a success.

5. It is agreed that the term of this contract shall commence on the 31st day of December, 1943 and continue for a period of five (5) years thereafter.

6. Imperial covenants and agrees that all conditions being equal, that Imperial will give to the Ore Company the first opportunity of supplying Imperial's total requirements for vanadium bearing raw material including flue dust, vanadium ores or concentrates.

Plaintiffs' Exhibit No. 110—(Continued)

7. If at any time during the term of this contract Imperial accumulates a quantity of any product equal to a four (4) months production by Imperial and which the Ore Company has been unable to sell, Imperial may, without payment of any commission to the Ore Company, sell such product, so accumulated, directly or through agents, but not for a price less nor upon terms less favorable than as the Ore Company shall have submitted as bids from its customers.

8. It is agreed that this contract is contingent upon the decision of Imperial to manufacture vanadium from other raw materials than chromite and/or to make ferro vanadium. If Imperial decides not to enter this new field of production, then in that event this agreement is null and void.

In Witness Whereof Imperial has caused these presents to be executed by its officers thereunto duly authorized and the Ore Company has caused the same to be executed by a general partner.

IMPERIAL PAPER AND COLOR CORPORATION.

/s/ By K. R. McBRIDE,
President.

HENRY J. LEIR, E. D. LEIR, L. SCHLOSS, co-partners carrying on business under the firm name and style of CONTINENTAL ORE COMPANY.

/s/ By HENRY J. LEIR,
A General Manager.

PLAINTIFFS' EXHIBIT No. 115

Imperial Paper and Color Corporation
Pigment Color Division
Glens Falls, N. Y.

Mr. M. Wolf, Manager, April 9, 1945
Continental Ore Company,
500 Fifth Avenue, New York 18, N. Y.

Dear Mr. Wolf:

Replying to your letter of April 6th regarding Peruvian Vanadium Ashes, we are writing to advise you that we did not find these worked too well in our process, though we believe that if we spent enough time on the project that we possibly could have made some changes that would have resulted in higher yields. However, we do not feel justified under present conditions in spending the time and money which would be involved to eliminate all the possibilities in these types of samples, because until there is a source of supply uncovered that represents enough material to operate a plant at a reasonable volume, we do not feel that we can afford to build a plant.

The viewpoint we have now is that this whole production of Vanadium Oxide is dependent largely upon having a satisfactory source of supply of raw material in sufficient volume.

Yours very truly,

IMPERIAL PAPER AND COLOR CORPORATION.

s/ A. F. BROWN,
General Manager, Pigment Color Division.

AFB:AEG

Plaintiffs' Exhibit No. 115—(Continued)

Imperial Paper and Color Corporation
Pigment Color Division
Glens Falls, N. Y.

April 13, 1945

Mr. M. Wolf,
Continental Ore Company,
500 Fifth Avenue,
New York 18, N. Y.

Dear Mr. Wolf:

Replying to your letter of April 12th regarding the Peruvian Vanadium Ashes, we wish to advise that our analysis on the material only indicated 13.77% V_2O_5 rather than the figure shown in your letter. We did not make any analysis for nickel.

So far as price is concerned, we are not accustomed to making bids for material but rather our way of doing business is to expect the company having the material to offer to name the price at which they are willing to sell, and then if this price is of interest we go into the matter further. We did enough work on these Peruvian Ashes to know that the processing cost per pound of V_2O_5 obtained would be considerably higher on these ashes than it would be on the Otavi Ore, but exactly how much more, we are not prepared to state, because we did not feel justified in going to the expense of finding this out, as this would involve considerable research. Assuming that the price was of interest, 30 tons a month, while it is an appreciable quantity, would still not be enough raw material to justify the erec-

Plaintiffs' Exhibit No. 115—(Continued)

tion of a plant, and it still seems to us that the fundamental problem is to find a reliable source of V_2O_5 in sufficient quantities to justify the erection of a plant, the price of the material to be such that we can afford to process it.

Yours very truly,

IMPERIAL PAPER AND COLOR CORPORATION,

/s/ A. F. BROWN,
General Manager, Pigment Color Division.

AFB:AEG

Imperial Paper and Color Corporation
Pigment Color Division
Glens Falls, N. Y.

May 11, 1945

Continental Ore Company,
500 Fifth Avenue,
New York 18, N. Y.

Gentlemen:

Referring to our conversation yesterday regarding the feasibility of us making Ferro Vanadium at a satisfactory cost from purchased V_2O_5, we would like to explore this matter, using material that you feel would be entirely representative of what we could regularly buy.

We are writing, therefore, to request that you purchase for us 200 pounds of fused V_2O_5 that will

Plaintiffs' Exhibit No. 115—(Continued)

be absolutely typical of what we can obtain in larger quantities, if our experiments look interesting, shipping this to us as promptly as possible by freight. It is our understanding that the market price of this material will be $1.10 per pound of V_2O_5 contained, and we, of course, desire to work with material that represents the same kind and approximate percentages of impurities that we would encounter in later shipments.

After we have done some work on this material, we may wish to avail ourselves of your kind offer to have the individual from Apex who has made Ferro Vanadium visit us as you suggested.

Yours very truly,

IMPERIAL PAPER AND COLOR CORPORATION,

/s/ A. F. BROWN,
General Manager, Pigment Color Division.

AFB:AEG

PLAINTIFFS' EXHIBIT No. 117

September 4, 1940

Apex Smelting Company
2537 West Taylor Street
Chicago, Illinois

Gentlemen:

re: Ferro Alloys

We received your letter of September 3d and we

Plaintiffs' Exhibit No. 117—(Continued)

ourselves also prefer to come to a quick understanding.

It is obvious that you must have full control of the business (sales and purchases) but, on the other hand, we do not want to be eliminated after we have established some new connections through our own efforts which entailed considerable expenditure of time and money on our part. This remark refers to our relations with Blanding which you certainly want to respect.

If you can assure us that you will conduct all negotiations pertaining to purchases from them through us (and such assurance must apply to all new sources of supply of raw materials which we may discover in the future), we, in turn, will agree to give you all these materials without any profit for ourselves, wherever we are the sellers of your finished products. In cases where you are the direct seller, we accept your proposition to make special arrangements at the proper time regarding our compensation for the purchasing.

In turn, we would definitely agree to the following:

1. You keep Indiana, Illinois, Wisconsin and California as your own sales territory

2. We are to deal with the rest of the country on the basis of a commission of 2½% on the net price, fob Chicago

3. Mr. Leir relinquishes the bonus of 10%

4. The above arrangements will be in effect for

Plaintiffs' Exhibit No. 117—(Continued)

all shipments to be made until the end of next year, December 31, 1941

5. Both parties will keep each other informed currently about all market conditions and the results of contacts with customers, even if there are no actual sales.

In Paragraph #4, we have put "end of next year" because we cannot avoid making contracts for the entire year 1941. However, if you prefer to replace "shipments until the end of next year" by the term "sales until September 1941," we would quite agree.

We hope this reply satisfies you in every respect.

Very truly yours,

CONTINENTAL ORE
CORPORATION,

.....,
President.

Henry John Leir
r

[Letterhead of Apex Smelting Co.]
2537 W. Taylor Street, Chicago, Ill.
Air Mail

Sept. 9, 1940

Continental Ore Corporation
500 - 5th Ave.
New York, N. Y.
Attention: Mr. Henry John Leir

Gentlemen:

We have your letter of September 4, and we wish to say that we not only agree, but we expect you

Plaintiffs' Exhibit No. 117—(Continued)

will purchase the material subject to our approval.

We also accept all five provisions designated as numbers 1, 2, 3, 4, and 5.

We therefore suggest that Mr. Leir send us his agreement, in which he relinquishes the 10%.

Yours very truly,

APEX SMELTING CO.,
/s/ L. LIPPA,
L. Lippa.

LL:AM

Henry John Leir
500 Fifth Avenue, New York City
September 11, 1940

Apex Smelting Company,
2537 West Taylor Street,
Chicago, Illinois

Re: Ferro Alloys

Gentlemen:

I take pleasure in referring to the Agreement, which has been concluded between you and the Continental Ore Corporation according to exchange of letters under date of Sept. 4/9, 1940.

I confirm herewith that I relinquish the ten percent (10%) bonus, which has been reserved for me personally by Agreement of July 14, 1938 for such time as your above Agreement with the Continental Ore Corporation is effective.

Yours very truly,

.....

Henry John Leir:k

Plaintiffs' Exhibit No. 117—(Continued)

[Letterhead of Apex Smelting Co.]
2537 W. Taylor Street, Chicago, Ill.

May 24, 1941

Mr. Henry J. Leir
c/o Continental Ore Corp.
500 Fifth Avenue
New York City

Dear Mr. Leir:

With reference to our contract dated July 1, 1938, made with the Societe d'Electro-Chimie de Brignoud, we are enclosing two copies of an agreement with the Continental Ore Corporation making them the exclusive sales agent* for our Thermit Department, in consideration for which they agree to reduce the portion of the royalty due them as owner of one-half of the royalty payable to the Societe under the terms of the above contract to 8⅓% of the profits of the Thermit Department.

Our attorneys advise us that in their opinion the power of attorney granted you by the Societe gives you power only to collect the monies due the Societe on the contract, and does not grant you the power to alter the contract; therefore, the enclosed agreement was drawn in a form which covers the points in your memorandum, giving Apex two-thirds of the profits and the Societe and the Continental Ore Corp., together, one-third. However, any payment of royalties will be made as follows: 8⅓% to the

* Crayon Underscore.

Plaintiffs' Exhibit No. 117—(Continued)

Continental Ore Corporation, and 25% to yourself, personally, as attorney for the Societe.

We trust that the enclosed contract is satisfactory, and would appreciate your returning a signed copy for our files.

Very truly yours,

APEX SMELTING CO.,
/s/ WILLIAM R. BAYER,
William R. Bayer.

WRB:JB
Enc.
Airmail

This Agreement made and entered into this .... day of May, 1941, by and between Apex Smelting Company, an Illinois corporation (hereinafter referred to as "Apex"), and Continental Ore Corporation, a New York corporation (hereinafter referred to as "Continental").

Witnesseth:

Whereas, Apex heretofore entered into a certain contract, dated July 1, 1938, with Societe d'Electro-Chimie de Brignoud, a corporation of France (hereinafter referred to as the "Society"), a copy of which, marked Exhibit A, is attached hereto and hereby made a part hereof; and

Whereas, Continental is now the owner of one-half of the royalty payable to the Society under the terms of said contract;

Now, Therefore, it is mutually agreed as follows:

Plaintiffs' Exhibit No. 117—(Continued)

1. Continental is hereby appointed as the exclusive sales agent for the products of the Thermit Department of Apex throughout the United States (except the States of Indiana, Illinois, Wisconsin and California) and its possessions and all foreign countries during the life of this agreement. Apex agrees to pay to Continental a commission equal to two and one-half per cent (2½%) of the net selling price, f.o.b. Chicago, Illinois, (less returns and allowances) of all products of the Thermit Department of Apex sold in the aforesaid territory during the life of this agreement. Apex shall, from time to time, fix the sales price of said products. All orders shall be subject to the written approval of Apex which may refuse to accept any order with or without cause. Commissions due hereunder shall be paid in monthly installments on or before the tenth day of the succeeding month.

2. Continental agrees to use its best efforts to promote the sale of products of the Thermit Department of Apex within the aforesaid territory.

3. Continental agrees to furnish to Apex, at Continental's cost, all raw material (with the exception of such material as Apex may purchase) required in the operation of the Thermit Department, all purchases, however, to be subject to the written approval of Apex.

4. From and after the date hereof, the royalty payable by Apex under the attached contract shall

Plaintiffs' Exhibit No. 117—(Continued)

be reduced from fifty per cent (50%) to thirty-three and one-third per cent (33⅓%) of the net receipts, if any, as defined in said contract, of said Thermit Department, payable as follows: twenty-five per cent (25%) of said net receipts to the Society and eight and one-third per cent (8⅓%) of said net receipts to Continental.

5. This agreement shall continue in full force and effect until the termination of the attached contract. This agreement shall be binding upon and inure to the benefit of the respective successors and assigns of the parties hereto.

In Witness Whereof, the parties have caused this agreement to be duly executed the day and year first above written.

APEX SMELTING COMPANY,

/s/ By W. A. SINGER,
President.

Attest:

/s/ LOUIS LIPPA,
Secretary.

CONTINENTAL ORE
CORPORATION,

By .....
President.

Attest:

.....,
Secretary.

Plaintiffs' Exhibit No. 117—(Continued)

Exhibit "A"

This Agreement, made and entered into this 1st day of July, 1938, by and between Apex Smelting Company, an Illinois corporation (hereinafter referred to as the "Company"), and Societe D'Electro-Chimie de Brignoud, a corporation of France (hereinafter referred to as the "Society"),

Witnesseth:

Whereas, the Company is in the business of producing aluminum and zinc base and other non-ferrous alloys; and

Whereas, the Society represents that it owns and controls certain secret processes for the production of a complete line of ferro-alloys made by alumino-thermit process, including, without limiting the foregoing, ferro titanium, ferro tungsten, ferro vanadium, ferro chromium, chromium metal, manganese metal and welding powders, for the production of alumino-thermit stainless steel, and other alloying elements used in the manufacture of steel and iron (hereinafter referred to as the "Secret Processes"), but not including aluminum, zinc and copper magnesium and other products manufactured by the Company in the past; and

Whereas, the Company desires to acquire the Secret Processes and to create and operate a separate department to employ the same;

Now, Therefore, in consideration of the premises

Plaintiffs' Exhibit No. 117—(Continued)

and the mutual agreements herein contained, it is covenanted and agreed as follows:

1. The Society hereby sells, transfers and assigns the Secret Processes, all uses thereof, all inventions and discoveries included therein, all patents that may issue thereon, and all of its right, title and interest therein, throughout the United States and the territories thereof and the Dominion of Canada, to the Company and agrees to disclose the same to such person or persons as the Company may in writing designate. The Society further agrees to disclose to such person or persons as the Company may in writing designate and to transfer and assign to the Company all of its right, title and interest, throughout the United States and the territories thereof and the Dominion of Canada, in and to any and all improvements on the Secret Processes, or any one or more of them, and in and to any and all inventions, discoveries, processes and formulae useful or adaptable to the production of thermit process metals, or alumino-thermit stainless steel, or other steel alloying elements (other than the products heretofore manufactured by the Company), which, during the period of this agreement, the Society may make, discover or conceive. The Society further agrees, without charge to the Company but at the Company's expense, to execute, acknowledge and deliver all such further instruments, including applications for United States and Canadian patents and assignments of patents, and such assign-

Plaintiffs' Exhibit No. 117—(Continued)

ments or authorizations of applications for patents, as may be necessary to obtain patents for such inventions in the United States and Canada, and any and all reissues and extensions thereof, and to transfer title thereto and to vest the entire right, title and interest in any and all inventions, improvements, applications and patents, as aforesaid, in the Company. The Society further agrees to assist to the fullest extent of its ability, but not at its expense, the prosecution or defense of all interferences or court proceedings involving said inventions, as may reasonably be requested or demanded by the Company.

2. If, within 120 days after a full disclosure of the Secret Processes to the Company in manner aforesaid, the Company shall be advised by competent patent counsel (who may be counsel for the Company) that the Secret Processes, or any one or more of them, infringe or interfere with any claim included in outstanding Letters Patent of the United States, then the Company shall have the right, at its election, to terminate and cancel this agreement by notice in writing given to the Society within thirty days after the receipt of such advice. In the event of any cancellation pursuant hereto, the Company shall forthwith reassign and retransfer to the Society all of its right, title and interest in and to the Secret Processes, and thereupon this agreement shall be of no further force or effect.

3. If this agreement be not cancelled as herein-

Plaintiffs' Exhibit No. 117—(Continued)

before provided, then the Company agrees to establish and equip, in such manner as it deems proper, a separate department of its business to be known as the Thermit Department. The Thermit Department shall be devoted exclusively to the production and sale of a complete line of thermit process metals, alumino-thermit stainless steel and other nonferrous metals for steel and iron alloying (but not including products heretofore manufactured by the Company) and to trading in minerals and ores necessary to the aforesaid production. The Company further agrees to operate the Thermit Department throughout the term of this agreement; provided, however, that if any person, firm or corporation shall claim that the Secret Processes, or any one or more of them, infringe or interfere with any United States or Canadian patent or patent application or any prior invention, then the Company may, in whole or in part, suspend the operation of the Thermit Department until the validity or invalidity of such claim shall be determined or established by a court of competent jurisdiction.

4. The Company hereby agrees to pay to the Society a royalty equal to fifty per centum (50%) of the net receipts, if any, as hereinafter defined, received by the Company from its operation of the Thermit Department during the term of this agreement. All royalties hereunder shall be paid in annual installments within 45 days after the close of each calendar year. All payments to the Society

Plaintiffs' Exhibit No. 117—(Continued)

hereunder shall be made in lawful money of the United States, shall be remitted to it by Chicago or New York draft, and shall be subject to all applicable laws of the United States or the State of Illinois relating to the withholding of taxes at the source.

5. The term "net receipts" as used herein shall, for all purposes of this agreement (but for no other purpose), mean the amount which shall be ascertained by deducting from the gross revenues and income of the Thermit Department during each calendar year, the following:

(a) All direct charges against the Thermit Department for such calendar year, including, without limiting the foregoing, (1) the cost of raw materials and fluxes, (2) the cost of direct labor, (3) the cost of fuel and power, (4) the cost of compensation insurance, (5) the cost of packing material, (6) the cost of publicity advertising products of the Thermit Department exclusively, (7) the cost of freight and drayage, (8) the salary or compensation of the Production Consultant of the Thermit Department, (9) rental on the space occupied by the Thermit Department at the rate of thirty cents (30c) per square foot, (10) depreciation on equipment at the rate of seven and sixty-nine hundredths per centum (7.69%), per year, (11) losses in the collection of accounts receivable, (12) inventory losses, and (13) all direct taxes such as sales, manufacturer's, license and social security taxes. All

Plaintiffs' Exhibit No. 117—(Continued)

aluminum metal required by the Thermit Department shall be furnished by the Company and charged to the Thermit Department at its cost to the Company plus one-half cent (½c) per pound.

(b) An amount equal to that proportion of the indirect expenses of the Company for such calendar year which the sales of the Thermit Department bear to the total sales of the Company during such calendar year. Indirect expenses shall include sales expense, administration expense, such manufacturing expenses as are not included in the direct charges, income and property taxes and such other taxes as are not included in the direct charges.

(c) All net losses of the Thermit Department for prior calendar years which have not been charged against the net receipts of the Thermit Department in subsequent years.

The net receipts of the Thermit Department shall at the end of each calendar year be determined by certified public accountants, to be employed by the Company, in accordance with the foregoing provisions of this Paragraph and, to the extent only that the disposition of any item is not herein specifically directed, in accordance with standard accounting practice. If said certified public accountants shall be of the opinion that the foregoing allocation of indirect expenses of the Company does not in fact correctly reflect the net receipts of the Thermit Department, said accountants shall recommend to

Plaintiffs' Exhibit No. 117—(Continued)

the parties hereto a more accurate method of allocating the same.

6. The Company shall keep true and accurate records and accounts of all operations of the Thermit Department and of all sales, administration and manufacturing expenses and taxes of the Company, which records and accounts shall be open during business hours to the inspection of the Society, or its nominee, with the right to make copies.

7. The Society hereby agrees that it will not, directly or indirectly, engage in the business of producing or selling thermit process metals or alumino-thermit stainless steel or other non-ferrous metals employed in alloying steel or iron within the United States or any territory thereof or within the Dominion of Canada, during the term of this agreement, nor will it permit any corporation or association affiliated with it so to do. The Company agrees that it will not, directly or indirectly, engage in the business of producing or selling thermit process metals or alumino-thermit stainless steel or other non-ferrous metals employed in alloying steel or iron (but not including products heretofore manufactured by the Company) within the United States or any territory thereof or within the Dominion of Canada, during the term of this agreement, except by means of the Thermit Department, nor will it permit any corporation or association affiliated with it so to do.

8. The Society agrees that it will, at all times

Plaintiffs' Exhibit No. 117—(Continued)

during the installation and completion of all equipment required in the Thermit Department and until satisfactory production has been obtained in the Thermit Department, furnish to the Company the services of a skilled technician, without cost to the Company other than the payment of his necessary travelling expenses.

9. The Society agrees that it will not do or omit, or suffer to be done or omitted, any act or thing whereby the Secret Processes, or any one or more of them, may become known to any unauthorized person.

10. All notices shall be given by registered mail, postage prepaid. All notices to the Company shall be addressed to the Company at 2554 Fillmore Street, Chicago, Illinois, or to such other address as the Company shall have previously designated in writing. All notices to the Society shall be addressed to the Society at 66, Rue de Miromesnil, Paris, France, or to such other address as the Society shall have designated in writing.

11. The term of this agreement shall commence at the date hereof and continue until (a) the expiration of fourteen (14) years from the date hereof, (b) the operation of the Thermit Department for two (2) successive calendar years without an average annual net profit of at least Seventy-five Hundred Dollars ($7500.00), or (c) the issuance by a court of competent jurisdiction of an injunction

Plaintiffs' Exhibit No. 117—(Continued)

restraining the Company from using any one or more of the Secret Processes by reason of patent infringement, which ever shall happen the earliest.

12. This agreement shall be binding upon and inure to the benefit of the respective heirs, legal representatives, successors and assigns of the parties hereto, and shall be construed in accordance with the laws of the State of Illinois.

In Witness Whereof the parties hereto have caused these presents to be duly executed the day and year first above written.

APEX SMELTING COMPANY,
/s/ By W. A. SINGER,
President.

Attest:
/s/ LOUIS LIPPA,
Secretary.

[Seal] SOCIETE D'ELECTRO-CHIMIE de BRIGNOUD,
/s/ By M. SPITZER,
Title L'Administrateur Directeur General.

Know All Men By These Presents, that

Whereas, heretofore on the 1st day of July, 1938, Societe d'Electro-Chimie de Brignoud, a corporation organized and existing under and by virtue of the laws of the Republic of France, and the Apex

Plaintiffs' Exhibit No. 117—(Continued)

Smelting Company, a corporation organized and existing under and by virtue of the laws of the State of Illinois, entered into a contract wherein and whereby the Apex Smelting Company agreed to organize a Ferro Alloy Department in the Apex Smelting Company, and after the deduction of certain expenses as in said agreement more particularly provided, to divide the profits therefrom in such manner that one-half thereof would be paid to the Apex Smelting Company and one-half thereof would be paid to Societe d'Electro-Chimie de Brignoud, and

Whereas, by an instrument of April 26, 1939, a photostatic copy of which is annexed hereto, the Societe d'Electro-Chimie de Brignoud set over, transferred and assigned to Societe Anonyme des Minerais, a corporation organized and existing under and by virtue of the laws of the Dutchy of Luxemburg, an undivided half interest in any amounts due or payable to Societe d'Electro Chimie de Brignoud under and pursuant to said contract with the Apex Smelting Company, and

Whereas, Societe Anonyme des Minerais thereafter, to wit, on or about the 15th day of April, 1939, set over, transferred and assigned to Henry John Leir as trustee for a corporation to be organized, the interest so received by them from Societe d'Electro-Chimie de Brignoud, and

Whereas, Henry John Leir thereafter transferred

Plaintiffs' Exhibit No. 117—(Continued)

the interest so received by him as trustee to the Continental Ore Corporation, a New York Corporation, and

Whereas, Societe Anonyme des Minerais undertook to execute such instrument for the further assurance of the title of Henry John Leir or his assignee in and to said interest as Henry John Leir should request, and

Whereas, Henry John Leir has requested that a direct assignment for further assurance be executed by Societe Anonyme des Minerais to the Continental Ore Corporation.

Now, Therefore, in consideration of the premises and the sum of One ($1.00) Dollar in hand paid by the Continental Ore Corporation, and of other good and valuable consideration, receipt whereof is hereby acknowledged, Societe Anonyme des Minerais hereby sets over, transfers and assigns to the Continental Ore Corporation an undivided twenty-five (25%) percent interest in the profits arising under the contract between the Apex Smelting Company and Societe d'Electro-Chimie de Brignoud, dated July 1, 1938, the same being an undivided one-half of the amount which the Societe d'Electro-Chimie de Brignoud was entitled to receive under the terms of said contract.

In Witness Whereof, Societe Anonyme des Minerais has caused these presents to be executed by

Plaintiffs' Exhibit No. 117—(Continued)

an administrateur and a Directeur acting on their behalf.

SOCIETE ANONYME DES
MINERAIS,
/s/ By LOUIS ACKERMANN,
Administrateur,
/s/ By (Illegible),
Directeur.

State of New York,
County of New York—ss.

On the 17th day of December, in the year 1940, before me personally came Louis Ackermann to me known, who, being by me duly sworn, did depose and say he resides in Park Crescent Hotel, New York City; that he is one of the administrateurs of the Societe Anonyme des Minerais, the corporation described in and which executed the above instrument, that the corporation has no seal; and that he signed his name thereto by order of the assemble generale of said corporation.

[Seal] SYLVEN SALTZER,
Notary Public Kings Co. Clk. No. 704, Reg. No. 2799, N. Y. Co-Clks. No. 2118, Reg. No. 2S1235. Commission expires March 30, 1942.

No. 2466
PLAINTIFF'S EXHIBIT No. 118
JUN 12 1958
Wisely 1149

Vanadic Acid — North Continent Mines, Inc. — Apex Smelting Co

1940	Lot			% V_2O_5	# V_2O_5	Price	$	
11-13	248	11,200		78.70%	8,813.24	1.10	9,694.56	1
11-28	249	11,200		78.79%	8,818.18	1.10	9,700.00	1
12-10	250	11,200		78.58%	8,793.89	1.10	9,673.28	1
1941								
1-25	251	4,993		77.95%	3,888.14	1.00	3,888.14	2
2-20	247	11,200	Mine	80.23	8,985.76	.98	8,806.05	2
2-24	252	11,200		80.03	8,945.43	.98	8,766.52	2
3-3	253	10,618		79.78	8,448.70	.98	8,279.73	3
5-6	254	10,400		81.45	8,458.58	.98	8,289.41	5
6-3	255	9,600		80.69	7,738.20	1.01	7,815.58	6
7-7	256	14,400		79.54	11,453.65	1.01	11,553.04	8
7-24	257	9,600		79.92	7,660.33	1.01	7,736.92	8
8-12	258	11,200		78.13	8,741.18	.98	8,566.36	9
8-30	259	10,400		78.95	8,200.14	.98	8,036.14	9
9-27	260	18,400		79.22	14,548.75	.98	14,257.78	1
10-26	261	16,000		79.20	12,633.98	1.01	12,760.32	1
11-29	262	14,200		80.52	11,418.94	1.05	4,989.89	1
12-27	263	16,000		77.70	12,419.57	1.05	13,040.55	1
		168,211			133,535.35		133,786.43	

Plaintiffs' Exhibit No. 118--(Continued)

Vanadic Acid — North Continent Mines, Inc. — Apex Smelting Co.

1942	Lot		% V_2O_5	# V_2O_5	Price	$	
1-24	264	11,200	79.13%	8,840.40	1.05	9,282.42	2/2
3-12	265	16,000	76.33%	12,198.30	1.05	12,808.21	3/2
3-28	266	11,200	77.47%	8,668.12	1.05	9,101.53	4/1
4-26	267	14,400	78.47%	11,282.42	1.08	12,185.01	5/2
5-23	268	7,200	78.35%	5,634.15	1.08	6,084.88	6/1
5-30	269	7,979	77.25%	6,163.78	1.08	6,656.88	7/1
6-18	270	7,200	74.33%	5,351.76	1.08	5,779.90	7/1
6-24	271	7,990	78.09%	6,328.59	1.08	6,737.68	7/1
Short		(277)		(223.51)		(241.39)	

* Actual weight 7,713. as rec'd.

To: Continental Ore Corporation, New York

7-30	272	15,200	77.78%	11,815.47	1.10	12,997.01	
					Montrose		
8-24	273	4,933	79.31%	3,904.43		4,294.84	9/1
Short		(19)		(15.04)		(16.54)	9/1
12-14	274	2,855	79.00%	2,253.78		2,479.16	1/1

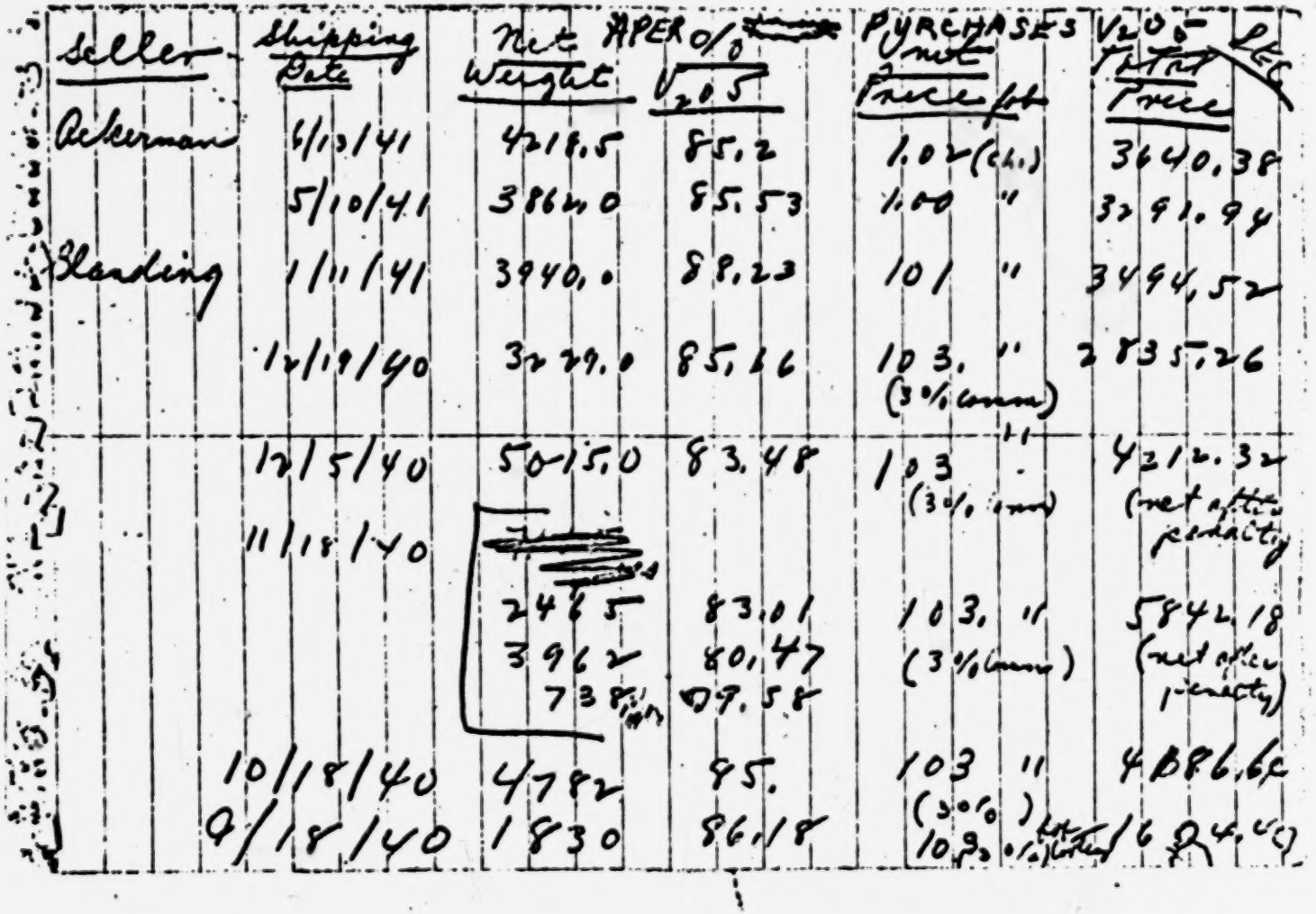
1943

12-30	275	2,800	79.2[illegible]%	2,216.11		2,437.72	1/3
2-2	276	7,700	77.35%	5,947.02	Cancelled	6,541.72	3/3
2-27	277	3,500	75.00%	2,620.00		2,882.00	3/2
3-20	278	7,000	74.83%	5,221.86		5,744.05	4/1
4-20	279	7,700	80.01%	6,152.77		6,768.05	5/1
				22,157.76		890.32 credit	

Plaintiffs' Exhibit No. 118--(Continued)

Sold	2/24/41	11200	80.03	98	8766.52
	2/20/41	11200			
	1/25/41	4993	77.95	100	3888.14
	12/10/40	11200	78.58	110	9673.28
	11/28/40	11200	78.77	110	9700.00
	11/13/40	11200	78.76	110	9698.56
	5/13/40	3000	79.43	110	2621.19
	5/13/40	3448	78.22	110	3441.68
	4/17/40	3000	76.83	110	2535.39
	2/28/40	3000	77.57	110	2559.81

Plaintiffs' Exhibit No. 118--(Continued)



Seller	Shipping Date	Net Weight	PAPER O/O V205	PURCHASES Net Price f.o.b.	V205 Net Price	Less
Ackerman	6/13/41	4218.5	85.2	1.02 (cash)	3640.38	
	5/10/41	3864.0	85.53	1.00 "	3291.94	
Blanding	1/11/41	3940.0	88.23	101 "	3494.52	
	12/19/40	3279.0	85.16	103. " (3% comm)	2835.26	
	12/5/40	5015.0	83.48	103 " (3% comm)	4212.32 (net after penalty	
	11/18/40	[redacted]				
		2485	83.01	103. "	5842.18	
		3962	80.47	(3% comm)	(net after penalty	
		738	89.58			
	10/18/40	4782	95.	103 " (3%)	4886.62	
	9/18/40	1830	86.18	10[illegible]	6[illegible]	

2205

Plaintiffs' Exhibit No. 118--(Continued)

Seller Blending	Shipping Date	Net Weights	% V_2O_5	Unit Price	Total Price
	9/13/40	4489.0	85.92	103 (3%)	961.94
	8/19	5442	91.34		571.75
	8/22	1007	90.5	103½ (lbs)	932.10
Monticello V. Co (Williams & Co) Delaware Co Bankers	9/18/41	1177	83.41	102½	973.97
(F.A Sitton Dow Creek Co Pay to order of	5/29/41	1008	90.65	102 "	908.03
	5/6/41	871		100	733.37
	4/24/41	481	88.3	100	487.74
Wm G Mathews	4/1/41	3117	85.14	100	3 443.99 (less 3%)
	4/12/41	1624	84.8	100	1536.50 (less 3%)

Plaintiffs' Exhibit No. 118--(Continued)

Seller	Shipping Date	Net Weight	O/D 0205	Unit Price	Total Price
Morrison	3/17/41	2005	85.03	100	1705.3
Nealey	11/13/41	6550	85.95	103½	5820.
Wilson	12/18/41	5100	87.62	103½	5301.
	Subsequent	shipments			Con'd
Shattuck	6/17/42	7713	78.08	108	6496.
	6/18/42	7200	78.65	108	5779.
	5/30/42	7979	77.25	108	6656.
	5/23/42	7200	78.35	108	6084.8
	4/26/42	14400	78.47	108	12185.
	3/28/42	11210	77.47	105	9101.5

Plaintiffs' Exhibit No. 118--(Continued)

Seller	Shipping Date	Net Weight	O/O Ozs	Unit Price	Total Price
Whitlock	3/12/42	16000	76.33	105	12808
	11/24/42	11200	79.13	105	9282.4
	12/27/41	16800	77.70	105	13040.5
	11/28/41	14200	80.52	103	11761.51
	10/26/41	16000 (12133 + 3307)	79.20	103 / 98	12760.3
	9/27/41	18400	79.22	98	14257.78
	8/30/41	10400	78.95	98	8036.14
	8/12/41	11200	78.13	98	8566.36
	7/24/41	9600 (7660 + 1340)	79.92	98 / 101	7736.92
	7/7/41	14600	79.54	101	11530.4
	6/3/41	9600	80.69	101	7815.58
	5/6/41	10400	81.45	98	8289.41
	3/3/41	10618	79.78	98	8279.7

J. J. EX. NO. 34 — Plaintiffs' Exhibit No. 112--(Continued)

APEX PURCHASES V205

Seller	Shipping Date	Net Weight	% V205	Unit Price	f.o.b.	Total Price
Ackerman	6/13/41	4218.5	86.2	$1.02	Chicago	$3640.38
"	5/10/41	3862.0	85.53	1.00	Chicago	3291.94
Blanding	1/11/41	3940.0	88.23	1.01	Chicago	3494.52
"	12/19/40	3229.0	85.66	1.03	Chicago*	2838.26
"	12/5/40	5015.0	83.48	1.03	Chicago*	4212.32**
"	11/18/40	(2455.0 (3902.0 (738.0	83.01 80.47 79.58	1.03	Chicago*	5842.18**
"	10/18/40	4792.0	85.00	1.03	Chicago*	4186.64
"	9/18/40	1830.0	86.13	1.03	Cortez*	1624.10
"	9/13/40	4489.0	85.92	1.03	Cortez*	3961.94
"	8/19/40	5442.0	91.34		Cortez	5115.72
"	8/2/40	1007.0	90.50	1.03	Chicago	932.18
Monticello***	9/12/41	1177.0	83.41	1.02	Chicago	973.47
"	8/29/41	1008.0	90.65	1.02	Chicago	908.03
"	6/6/41	871.0		1.00		733.37
"	4/24/41	491.0	88.3	1.00		412.76
Wm. G. Morrison	4/1/41	3117.0	86.14	1.00		2443.99****
"	4/12/41	1624.0	84.8	1.00		1336.50****
"	3/17/41	2006.0	85.08	1.00		1652.96
Wiseley & Wilson	11/13/41	6550.0	85.95	1.035	Gateway	5820.94
"	12/18/41	5100.0	87.62	1.035	Gateway	4801.90

(subsequent Wiseley & Wilson shipments to Continental Ore)

*5% commission
**Net after penalty
***J.J.Harris & Co., Dolores, Colorado, bankers; F.H.Sitt... Dove Creek, Colo... payments to account of
****Less penalty

10

[redacted]

Seller	Shipping Date	Net Weight	% V205	Unit Price f.o.b.	Total Price
Shattuck	6/24/42	7713.0	78.08	$1.08 Chicago	$8406.21
"	6/18/42	7200.0	78.88	1.08 Chicago	5779.90
"	5/30/42	7979.0	77.25	1.08	8656.88
"	5/23/42	7200.0	78.35	1.08	6084.88
"	4/26/42	14400.0	78.47	1.08	12185.01
"	3/28/42	11200.0	77.47	1.05	9101.58
"	3/12/42	16000.0	78.33	1.05	12808.00
"	1/24/42	11200.0	79.13	1.05	9282.42
"	12/27/41	16000.0	77.70	1.05	13040.55
"	11/28/41	14200.0	[illegible]	1.03	11761.51
"	10/29/41	16000 (12633 (3367	79.30	(1.01 (.98	12760.82
"	9/27/41	13400.0	79.22	.98	14257.78
"	8/30/41	10400.0	78.95	.98	8036.14
"	8/12/41	11200.0	78.13	.98	8566.36
"	7/24/41	9000 (7660 (1340	79.97	(.98 (1.01	7736.92
"	7/[illegible]/41	14400	79.84	1.01	11553.04
"	6/3/41	9600	80.69	1.01	7815.58
"	5/6/41	10400	81.45	.98	8289.41
"	5/3/41	10618	79.78	.98	8279.73
"	2/24/41	11200	80.03	.98	8766.52
"	1/25/41	4993	77.93	1.00	3888.14
"	12/10/40	11200	78.58	1.10	9673.28
"	11/29/40	11200	78.78	1.10	9700.00

Seller	Shipping Date	Net Weight	% V205	Unit Price f.o.b.	Total Price
Shattuck	11/15/40	11200.0	78.78	$1.10	$9694.56
"	8/13/40	3000.0	79.45	1.10	2621.19
"	8/28/40	(5136.0)	78.22	1.10	3441.68

Exhibit No. 112

JUN 12 1950

CONTINENTAL ORE CORPORATION AND CONTINENTAL ORE COMPANY

SALES OF VANADIUM *

	VANADIUM PENTOXIDE V 205 LBS.	VANADIUM PENTOXIDE V 205 AMOUNT	FERRO VANADIUM LBS.	FERRO VANADIUM AMOUNT	VAN EX LBS.	VAN EX AMOUNT	VANADIUM SILICIDE LBS.	VANADIUM SILICIDE AMOUNT	TOTALS LBS.	TOTALS AMOUNT
June 13, 1939 to December 31, 1939,	48,059.74	$ 59,223.77							48,059.74	$ 59,223.77
1940,	38,317.49	51,800.96	15,648.50	$ 45,183.86					53,965.99	96,984.82
1941,	8,495.11	9,634.03	70,845.76	193,820.87					79,340.87	203,454.90
1942,			27,838.87	78,269.25	71,555	$171,166.50			99,393.87	249,435.75
1943,	7,140.71	7,854.79	10,572.76	29,603.72	6,480	15,810.00	58.00	$162.40	24,261.47	53,430.91
1944,	1,724.35	1,167.92	1,470.52	4,117.46	5,650	8,806.25	34.80	100.92	8,879.67	14,192.55
1945,	4,219.72	2,945.01	6,422	11,071.95	1,705	3,506.35	2.00	6.00	12,348.72	17,529.31
1946,					100	240.00			100.00	240.00
1947,										
1948,										
1949,										
TOTAL (See Note 1),	107,957.12	$132,626.48	132,798.41	$362,067.11	85,490.00	$199,529.10	94.80	$269.32	326,340.33	$694,492.01

* Includes U. S., Canada and Switzerland -
Sales to Switzerland FV-6513 lbs.
value $22,797.90.

Note 1 - Materials, sold by Continental Ore Company or Continental Ore Corporation, billed by Apex Smelting Company, Chicago, ... 108,532.56 $298,654.33 5,000 $ 12,000.00 113,532.56 $310,654.33

CONTINENTAL ORE CORPORATION AND CONTINENTAL ORE COMPANY — Plaintiffs' Exhibit No. 119--(Continued)

ANALYSIS OF C. O. C. BILLINGS OF VANADIUM

	VANADIUM PENTOXIDE, V2O5		FERRO VANADIUM		VAN EX		VANADIUM SILICIDE		TOTAL	
	LBS.	AMOUNT	LBS.	AMOUNT	LBS.	AMOUNT	LBS.	AMOUNT	LBS.	AMOUNT
1939	48,659.74	$ 59,223.77							48,059.74	$ 59,223.77
1940	38,317.49	51,801.96	2,900	$10,491.95					41,217.49	62,292.91
1941	8,495.11	9,634.03							8,495.11	9,634.03
1942			2,900.57	8,127.70	66,555	$159,166.50			69,455.57	167,294.20
1943	7,140.71	7,854.79	10,572.76	29,603.72	6,480	15,810.00	58	$162.40	24,251.47	53,430.91
1944	1,724.35	1,167.92	1,470.32	4,117.46	5,650	8,806.25	34.8	100.92	8,879.67	14,192.55
1945	4,219.72	2,945.01	6,422	11,071.95	1,705	3,506.35	2	6.00	12,348.72	17,529.31
1946					100	240.00			100	240.00
1947										-
1948										-
1949										-
TOTAL	107,957.12	$132,626.48	24,265.85	$63,412.78	80,490	$187,529.10	94.80	$269.32	212,807.77	$383,837.68

29ecs

JUN 1 2 1958

CONTINENTAL ORE CORPORATION AND CONTINENTAL ORE COMPANY

STATEMENT OF YEARLY SALES, COSTS AND PROFITS - VANADIUM

YEAR	SALES C. O. C. BILLING	COST OF SALES	GROSS PROFIT	% OF GROSS PROFIT TO SALES	SALES APEX BILLING	COMMISSION EARNED
June 13, 1939 - Dec. 31, 1939,.....	$ 59,223.77	$ 53,409.67	$ 5,814.10	9.8		
1940,.....	62,292.91	54,007.99	8,284.92	13.3	$ 34,691.91	$1,188.83
1941,.....	19,634.03	9,392.44	241.59	2.5	193,820.87	4,963.71
1942,.....	187,294.20	147,046.35	20,247.85	12.1	82,141.55	3,322.77
1943,.....	53,430.91	47, 0	5,584.21	10.5		
1944,.....	14,192.55	14	(181.28)			
1945,.....	17,529.31	17,	465.38	2.6		
1946,.....	240.00	212.80	27.20	11.4		
1947						
1948						
1949						
TOTAL,.....	$383,837.68	$343,353.71	$40,483.97		$310,654.33	$9,475.31

SUMMARY

	INCOME			
	SALES	GROSS PROFIT	COMMISSION	TOTAL
Continental Ore - Govt. billings,....	$383,837.68	$40,388.33		$40,388.33 X
Apex - Billings,.....	310,654.33		$9,475.31	9,475.31
TOTAL,.....	$694,492.01	$40,388.33	$9,475.31	$49,863.64 X

PLAINTIFFS' EXHIBIT No. 122

February 27, 1942

To: Apex Smelting Company, Attention: Mr. Lippa
Re: Ferro Alloys

This is to confirm yesterday's conversation in Washington, during the course of which we discussed the situation and came to the following conclusions:

1. You definitely prefer to withdraw from the production of Ferro Alloys and we want to continue this business either alone or with associates. You will do everything in your power to facilitate the transfer of the business.

2. You will continue the Ferro Department for a period of three months, (March, April, May, 1942), and you will run it at capacity. That means you will convert all the quantities of vanadic acid we can secure from:

Blanding Mines
Nisley & Wilson
Shattuck

3. You will produce either Ferro-Vanadium or Van-Ex, at our option. If we choose Van-Ex, then it is understood that you will pack it for our account at cost, so that you will take no profit and also have no responsibility for this business.

4. You offered us the equipment of the Ferro Department, with the exception of the skull cracker and the hammer screen. If we decide to take it for our own account, the transfer will be made at cost less depreciation. Should we sell the equip-

Plaintiffs' Exhibit No. 122—(Continued)

ment to a third party, you will be entitled to a sales price leaving you a profit if possible. In any case, the prices for the equipment will have to be determined by mutual agreement.

5. You are prepared to put Mr. Starmann Jr. at our disposal for the organization of the production in another place, his salary to be borne by us of course.

6. You declared your readiness to supply us with the aluminum at the new place of production, if necessary.

We hope that the above covers the subject.

Upon your suggestion we wrote to Mr. Frost as per copy enclosed, but wish to inform you that we are also in negotiations with another party regarding this business.

CONTINENTAL ORE CORPORATION.

Henry J. Leir/rk
cc Mr. W. A. Singer

Inter-Office Correspondence
Apex Smelting Co.

March 2, 1942

From: Chicago
To: Continental Ore Corperation
Attention: Mr. H. J. Leir

Gentlemen:

We are in receipt of your letter of February 27th, and in principle it is correct except that it is under-

Plaintiffs' Exhibit No. 122—(Continued)

stood that we will produce as much as we possibly can in those three months.

The reason we bring this up is that you state that we should convert all the quantities that we can secure from the three companies you name. Not knowing how those quantities may be increased, it is difficult for us to make a commitment with the limited capacity that we have.

However, we believe that we understand each other in this particular. One other item with reference to Mr. Starmann, Jr. You realize, of course, that there will be some expense in addition to his salary, which, of course, would have to be straightened out between the two of you.

The other matter is that you, of course, will hold us harmless for any damage on the contract.

We are certain that all of the above will meet with your approval, but as a matter of record, we would appreciate it greatly if you would be good enough to let us have your acknowledgment.

Regards.

Very truly yours,

L. LIPPA.

LL:FS

Apex Smelting Company
Ferro Department

3/4/42

Attention: Mr. L. Lippa

We received your letter of March 2nd, and take

Plaintiffs' Exhibit No. 122—(Continued)

pleasure in confirming to you that we fully agree with the remarks contained therein.

CONTINENTAL ORE CORPORATION.

Henry J. Leir/rk

P. S. With regard to the damage you mention, we assume that this refers to your relations with F. K. Brignoud.

Apex Smelting Company
Ferro Vanadium Production

3/30/42

Attention: Mr. L. Lippa

We received your letter of March 27th and we gather from it that you would like to close-down the Ferro Department promptly.

We may be able to make arrangements with Latrole whereby we would not have to continue shipments of Ferro. However, before taking this matter up with the customer, we would like to have your opinion on the following point: In case we authorize you to dismantle the Ferro Plant (after the completion of the next 5000 lbs. of V) would you be ready to continue making Van-Ex for a correspondingly extended period, that is, until the end of July.

Please let us have your prompt reaction.

CONTINENTAL ORE CORPORATION.

Henry J. Leir/lm

Plaintiffs' Exhibit No. 122—(Continued)

Apex Smelting Co.
2537 W. Taylor Street
Chicago, Ill.

April 1, 1942

Continental Ore Corporation
500 Fifth Avenue
New York City, New York

Att: Mr. Henry J. Leir

Gentlemen:

In response to your letter of March 30th, the writer had the pleasure of speaking with Mr. Leir today, at which time we advised that we would be very glad to continue handling the Van-Ex for your account until the end of July,* providing you would agree that we could dismantle the Ferro Department within the next several days.

It was also understood that we would continue the purchase of the vanadic acid as heretofore, and that you would immediately furnish us with shipping instructions.

Should you at any time be unable to submit prompt shipping instructions, it is understood that we would, in that event, bill you for the vanadic acid and hold it in our warehouse for your account.

As advised you, we have completed March shipments to Latrobe, and the 5,000# for April will be completed by the end of this week.

---

* Crayon underscore.

Plaintiffs' Exhibit No. 122—(Continued)

Therefore, if you could give us permission to dismantle, we would very much like getting started on it the first of next week.

The writer understood from our conversation that you would advise us definitely by Saturday of this week.

Awaiting this advice, we remain

Very truly yours,

APEX SMELTING CO.,
L. LIPPA.

LL:L

4/3/42

Apex Smelting Company
Ferro Department

Attention: Mr. L. Lippa

We received your letter of April 1st and agree to these conditions.

You are, therefore, free to dismantle the Ferro Department after having completed the 5,000 lbs. of V for April delivery to Latrobe. You will continue to handle Van-Ex for our account until the end of July, as set forth in our letter of February 27th and yours of April 1st.

CONTINENTAL ORE CORPORATION.

Henry J. Leir/lm

Plaintiffs' Exhibit No. 122—(Continued)

Apex Smelting Co.
2537 W. Taylor Street
Chicago, Ill.

April 6th, 1942

Continental Ore Corporation
500 Fifth Avenue
New York City, N. Y.

Att: Mr. Henry J. Leir

Gentlemen:

We thank you very kindly for your letter of April 3rd., and in accordance with same, we will dismantle the Ferro Department.

In order to know just how to dispose of the equipment, we ask that you please be good enough to advise us whether you are going to be interested in the purchase of this. If not, we will attempt to dispose of it otherwise.

Please be good enough also to advise us regarding this property, and in the meantime we will prepare the regular release papers from this department, and will forward them on to you for your signature.

Very truly yours,

APEX SMELTING CO.,
L. LIPPA.

LL:L

PLAINTIFFS' EXHIBIT No. 127

Continental Ore Corporation

1/13/42

To: Apex Smelting Company

Subject: Re: Nisley & Wilson Vanadium/Shattuck

Attention: Mr. L. Lippa

We are very sorry to learn from your correspondence that Blanding has sold its output to Vanadium Corp.

This makes it even more imperative that you promptly write to Nisley & Wilson to ship the material now ready to you without further delay.

We also want to stress the necessity of sending the proposed letter out to the Vanadium Corp. It becomes more and more necessary every day to obtain a share from them, of the output of the new Government plant in Monticello, and we cannot pave the way for this too early.

Regarding Shattuck, we suggest that you approach them and offer them a contract for larger monthly quantities than they have at present from you, in order to induce them to increase their output.

We consider this most important, since they are now the only regular source of Vanadium we have.

CONTINENTAL ORE CORPORATION.
HENRY J. LEIR, R.K.

Henry J. Leir/rk

PLAINTIFFS' EXHIBIT No. 129

October 27, 1941

Apex Smelting Company
2537 West Taylor Street
Chicago, Illinois

Attention: Mr. William R. Bayer

Gentlemen:

Re: Ferro Alloys

We have your letter of October 25th, and confirm our telephone conversation with Mr. Singer, according to which we shall be in Chicago on Saturday morning, November 1st, in order to discuss the entire situation.

As arranged, you will not* notify the various suppliers of raw materials to stop shipments, especially since all the raw material received can be easily disposed of under present circumstances.

We look forward to seeing you.

Very truly yours.

CONTINENTAL ORE CORPORATION.
President.

Henry J. Leir/rk

---

* Pen underscore.

12/19/41

Apex Smelting Company
Latrobe

Attention: Mr. Lippa

Some time ago we promised you that we would not sell any more Ferro-Vanadium below $2.80,

Plaintiffs' Exhibit No. 129—(Continued)

which is the price of Vanadium Corp. of America Electrical Metallurgical Corp.

We are glad to inform you that Mr. Zenk today accepted our proposal for 1942 at $2.80.

He is full of praise for your 70-80% Ferro-Vanadium, which they are using for certain types of steel. He went so far as to admit they they cannot produce those steels unless they have your Ferro.

He told us of his wire to you, and your answer with regard to the 5000 pounds which are still due him. We informed him that he would receive this backlog of 5000 pounds by the end of the month.

CONTINENTAL ORE CORPORATION.

Henry J. Leir/rk

Inter-Office Correspondence

Apex Smelting Co.

From Chicago Dec. 22, 1941

To Continental Ore Corp.

Attention: Mr. H. J. Leir

Gentlemen:

We have your letter of December 19th, and we are pleased to note that the new basis to Latrobe will be $2.80. We are also delighted to hear that they have praised the material.

We note, however, that you informed them that the order of 5000 lbs. would be delivered to them by the end of this month. As you will note from our telegrams, it will not be possible to do this as we do not expect the department to be ready until sometime during the first week of January, and

Plaintiffs' Exhibit No. 129—(Continued)

with good luck, we hope to make shipment the second week of January.

You may rest assured that we will do everything we possibly can to expedite this.

Very truly yours,

L. Lippa.

LL:FS

PLAINTIFFS' EXHIBIT No. 130

(Copy)

Apex Smelting Co.
2537 W. Taylor St.
Chicago, Ill.

April 23, 1942

Vanadium Corporation of America
420 Lexington Avenue
New York City, N. Y.

Att: Mr. Gustave Laub, Vice President

Gentlemen:

In accordance with conversation our Mr. Christiansen had with you, we are pleased to enclose an equipment inventory of our Ferro Alloy Department which we desire to sell.

This list does not include all the equipment used in that department, since we find use for the rest of it in our aluminum production.

We would appreciate very much if you will advise us by return mail whether this will be of any interest to you.

We are greatly in need of the space and there-

Plaintiffs' Exhibit No. 131—(Continued)

ing Mr. Milenski, please be advised that we have arranged to pay them $1.50 * Chicago.

Also please be advised that he went back west from Chicago without going further east.

Very truly yours,

L. Lippa.

LL:FS

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* Crayon underscore.

January 6, 1942

Blanding Mines, Inc.
Cortez, Colorado

Attention: Mr. H. L. Bigler

Gentlemen:

We understand that your Blanding mill and your mining claims (or perhaps only one or the other) are at present under option to the Vanadium Corp. of America. We should very much appreciate your informing us frankly as to whether this information is correct. We hope you will not hesitate to tell us your position in that respect, in view of our long and pleasant relations, and the complete cooperation we have always given you.

In any case, we wish to say that it is of course the tendency of the U. S. Vanadium Corp. and the Vanadium Corp. of America to firmly establish their monopoly by getting hold of all sources of vanadic acid, so as to impede the operations of their sole competitor, the Apex Smelting Company.

Plaintiffs' Exhibit No. 131—(Continued)

However, we do not see any advantage to you in lending your facilities to this project. If you will sell out to the Vanadium Corp. at this time, you will only have to pay a lot of taxes, instead of holding on to a continuous business which, in cooperation with us, will be profitable for you for years to come.

During the war we can pay you a satisfactory price for the acid, and once the war is over, we can again obtain for you the higher prices which govern the foreign markets. This would not be the case if you sold out now, or tied up your production with the Vanadium Corp., because it would be they who would profit by these interesting foreign markets.

This situation may arise much more quickly than most people think. We do not believe the war will last for years and years, as is often anticipated. We think that conditions in Europe, and especially in Germany, are such that the end may come within this year.

For all these reasons, we think it is much more to your advantage to stay independent, and we should like to hear from you in this respect.

Very truly yours,

CONTINENTAL ORE
CORPORATION,

.....,
President.

Henry J. Leir/rk

Plaintiffs' Exhibit No. 131—(Continued)

Blanding Mines Company
(Of Utah)

(Copy) January 9, 1942

Apex Smelting Co.
2537 W. Taylor St.
Chicago, Ill.

Gentlemen:

At the advice and recommendation of the owner of our claims, it will be necessary for us to dispose of our product here. We regret very much that we will be unable to deal with you.

Very truly yours,

BLANDING MINES CO.,
By DAN MILENSKI,
Sec.

CC: Continental Ore Corp.

(Copy) January 12, 1942

Blanding Mines Company
P.O. Box 895
Cortez, Colorado
Attention: Mr. Dan Milenski

Gentlemen:

We have your letter of January 9th, and we regret exceedingly to note that you are compelled to dispose of your material in your district, as we enjoyed doing business with you, and we were looking forward to receiving increasing amounts from you.

Plaintiffs' Exhibit No. 130—(Continued)

fore are anxious to move these items as quickly as possible.

Incidentally, if your Chicago office would like to inspect this material, we want you to know that they will be welcome to do so.

Very truly yours,

APEX SMELTING CO.

L. Lippa

Received April 24, 1942. G.L.

LL:L

encl.

EWC

Apex Smelting Co.

(Copy)

Ferro Alloy Department Equipment Inventory:

Item 1: Allis-Chalmers 7" x 9" Dodge steel frame jaw crusher #3604, 36" x 4" double flywheel, 9 strand V belt motor drive, 32" centers, 30" grooved drive pulley, 7" grooved motor pulley, Master 10 H. P. induction motor #IN714, type PA, 3 phase, 60 cycles, 220 volts, 1150 R.P.M., Wadsworth 60 amp. 250 volt enclosed switch. New Value $1052.12.

Item 2: Allis-Chalmers 7" x 9" Dodge C. I. Frame jaw crusher #3599 with Allis-Chalmers 9-strand 10 H.P. Texrope drive. 30" centers, Master 10 H. P. induction motor #IM12, type PA, 3 phase, 60 cycles, 220 volts, 1150 R.P.M. New Value $836.89.

Item 3: Swinging jib crane 5" x 15' pipe mast with top and bottom ball bearings. 2" x 14' pipe jib, 2 winches and 3' wire cable. New Value $157.00.

Plaintiffs' Exhibit No. 130—(Continued)

Item 4: Twelve 48" x 48"—6" I beam frame industrial crucible trucks, 16" single flange wheel. New Value $600.00.

Item 5: A & J Iron and Boiler Works—4 Magnesite or ore dump buckets, 22" deep with sloping front side from top 40" x 20" to bottom 24 x 20. New Value $171.68.

Item 6: A & J Iron and Boiler Works — 1 Flat bottom crucible form (28" dia.) New Value $41.00. 1 round bottom crucible form (28" dia. at top of crucible) 53" high-25" wide at bottom. New Value $61.77.

Item 7: A & J Iron and Boiler Works—5 sets of crucible rings, 40 ½ rings. Each crucible has 4 complete rings, each 49" diameter and 12" high. New Value $600.00.

Item 8: 80 clamps and wedges to fasten the crucible rings. New Value $200.00.

Received April 24, 1942. G.L.

April 24, 1942

Apex Smelting Company
2537 W. Taylor Street
Chicago, Illinois

Attention: Mr. L. Lippa

Gentlemen:

This will acknowledge receipt of your letter of April 23rd submitting a list of equipment of your Ferro Alloy Department which you desire to dispose of.

Plaintiffs' Exhibit No. 130—(Continued)

We are referring this list to our Operating Department and will advise you promptly if they are interested in any of the items.

Thanking you, we are

Yours very truly,

Assistant Vice President.

GL:HK
cc/JRD

April 28, 1942

Apex Smelting Company
2537 W. Taylor Street
Chicago, Ill.

Attention: Mr. L. Lippa

Gentlemen:

Our Mr. Gustav Laub has handed me a list of equipment which I understand is to be disposed of.

We have sent this list to our Engineering Department and they are going over it in detail with the idea of determining which items might be of interest to us.

Please accept our thanks for the privilege of examining this list and we shall try to give you our answer as promptly as possible.

Very truly yours,

J. R. D.
Vice President.

JRD:V
CC-GL

Received April 28, 1942. G.L.

PLAINTIFFS' EXHIBIT No. 131

Daniel Milenski
Attorney-at-Law
Cortez, Colorado

Mr. Paul M. Hirschland — June 19, 1940
The Continental Ore Company
500 5th Ave.
New York, New York

Dear Sir:

The vanadium mines at Blanding, formerly operated by H. J. Kimmerle, and later by Bigler & Usher, will soon be producing fused vanadic acid. The mill has been rebuilt and greater production is anticipated. It will be operated by a group, the principal member being Mr. Bigler.

It is expected that by July 15, 1940 that a fair sized shipment will be ready, and if you are interested in purchasing the finished product, we would appreciate hearing from you. We believe that an arrangement similar to that of the past, that is you would maintain a balance in the Bank here to guarantee payment and also to draw advances against on bills of lading if necessary.

May we hear from you?

Very truly yours,

Dan Milenski.

Mr. Daniel Milenski, — July 2, 1940
Cortez, Colorado.

Dear Sir:

We received Mr. Bigler's letter of June 27th and note with pleasure that you expect to have an out-

Plaintiffs' Exhibit No. 131—(Continued)

put of 10,000 lbs. of V205 per month. We are also glad to hear that you are prepared to cooperate with us, so that our existing pleasant relationship will be continued.

As a matter of fact, we specialize only in a few materials, but particularly in Ferro Alloys like Ferro Vanadium, Vanadic Acid, Lead-Vanadium ores, and other Vanadium bearing materials.

You will be aware of the fact that the export prices for Vanadic Acid are higher than those paid on the domestic market. For your information the present prices are as follows (for first-class Vanadic Acid with about 90% V_2O_5):

Domestic—$1.05-$1.10 delivered at points of consumption.

Foreign—$1.30-$1.35 f.o.b. New York, including ocean packing (steel drums).

As in the past we would buy your material "for export". However, the situation this year is different from that which existed last year, and it might be that

a) Washington bans exports of Vanadium which is considered a "critical" material for the national defense.

b) The situation abroad might develop in such a direction that exports will practically cease.

We are also buying Vanadium raw-materials which we convert into Ferro Vanadium in this country; in other words, if the export business would stop, we could nevertheless continue to buy from you for our domestic needs.

Plaintiffs' Exhibit No. 131—(Continued)

We would therefore like to put the following proposal before you, for your approval:

1) Every week you will ship your total output of fused Vanadic Acid with about 90% V_2O_5 (otherwise also of first-class quality) to Messrs. Ledoux & Company, New York City.

2) You will present the B/L to your bank in Cortez who will pay you an advance of 75c per lb. Vanadic Acid (not V_2O_5), for our account.

3) As long as we can export and until further notice we will pay you $1.30 per lb. V_2O_5 f.o.b. Thompson, Utah.

Sampling, analysis, packing expenses of Ledoux & Company to be equally divided between us, as in the past.

4) If export possibilities cease, we will

a) make new arrangements with you regarding the use of any material with Ledoux or in transit for the domestic market, at a price to be agreed upon.

b) if no agreement as to price is possible, we will be obliged to put the merchandise at your disposal, and you will return our advance.

On going through the above conditions you will find that they protect the interests of both parties, which, after all, is the purpose of a contract.

We strongly recommend you to bring down your production cost, so that you will make a profit even

Plaintiffs' Exhibit No. 131—(Continued)

if you are limited to the lower domestic prices, should general conditions develop that way.

Very truly yours,

CONTINENTAL ORE CORPORATION.
Henry John Leir.

HJL/LL.

Blanding Mines Company
(Of Utah)

November 18, 1940

Continental Ore Corporation
500 Fifth Ave.
New York, New York

Gentlemen:

This morning we shipped gross weight of 7290 to Apex, for which invoice is enclosed.

Of this shipment 2465 net weight has a content of 86.7% and 4700 net weight has a content of 80.6% V_2O_5.

We were not certain until this date as to form that calcium had taken, and our chemist and engineer informs us that approximately 90% of all calcium in the sample was in the form of vanadate; 0.86% is insoluble.

Our laboratory facilities have been improved and have employed a very capable chemist. However, in view of the fact that we are not grinding the product as finely as should be in order to accurately determine the content, we would appreciate it, if in the future, you would send us a sample that has

Plaintiffs' Exhibit No. 131—(Continued)

been ground finely, and we will have our chemist analyze it. We request that this be done instead of referring it to Ledoux, as we are convinced that our analysis will not vary from the correct analysis which you will also obtain, providing that we have a representative sample of the entire shipment.

We have made some changes in the mill and we expect in the future to make more changes and improvements and we will include in the future improvements a crusher for the finished product. If we hold to our present output we will have between 12,000 and 15,000 monthly; and by spring it will probably be up to 20,000 lbs. We will endeavor to hold quality to 85% or better.

It might be of interest to you to state that our new chemist and metallurgist, Arnold J. Guerber, has over 25 years experience with rare metals, and worked for United States Vanadium and Standard Chemical Company as chief chemist, and he states that in his experience he has never seen the vanadium deposits that we have on our claims, which he states to be practically unlimited. At the present time our mill heads are averaging approximately 4% V_2O_5 equivalent after mixing 25% tailings with the ore as taken from the mine. We are finding the services of Mr. Guerber extremely valuable in solving some of our problems.

Very truly yours,

Blanding Mines Company,
Dan Milenski, Secretary.

Plaintiffs' Exhibit No. 131—(Continued)

Air Mail March 22, 1941

Blanding Mines Company
Box 895
Cortez, Colorado

re: Vanadic Acid

Gentlemen:

You are certainly aware of the fact that during these last weeks efforts are being made to substitute molybdenum for other alloys, especially tungsten and vanadium.

The reason for this is that a large proportion of tungsten, as well as vanadium, is being imported into the United States, whereas there exist huge quantities of molybdenum in this country.

The policy of the Apex Smelting Company is to satisfy every demand of their ferro vanadium customers, because if Apex were to decline their orders, they would certainly follow the general tendency and switch over to molybdenum. Then, in view of the difference in price, which is also in favor of molybdenum, it would be quite hard to win them back again.

Our other suppliers of Vanadic Acid—in order to make this policy of Apex a success—have greatly increased their output, and it is also in your interest to try to resume production at the earliest possible time, so that Apex can turn out increasing quantities of Ferro.

If you should only start again later in the Summer, it may be that Apex has reached the limit of their production, based on other sources of supply.

We therefore suggest that you resume at the

Plaintiffs' Exhibit No. 131—(Continued)

earliest moment the good relations which exist between you and Apex, in sending them as soon as possible further quantities of your material. Of course, do not ship in lots of less than 5,000 pounds at a time, as smaller quantities would cause too much trouble and Apex has to save all unnecessary handling at the present time.

It is certainly in the interest of all parties concerned to cooperate closely in order to satisfy the demands for vanadium at this time and to conserve a clientele for the time when conditions are normal again.

Very truly yours,

CONTINENTAL ORE CORPORATION,
President.

Henry J. Leir
SM

Blanding Mines Company
(of Utah)
P. O. Box 895
Cortez, Colorado

(Copy)

Oct. 31, 1941

Apex Smelting Co.
2537 Taylor St.
Chicago, Illinois

In response to request of Mr. Henry J. Leir we wired you as follows:—"We are in no hurry to start shipments. We are producing approximately 2500 lbs. per week. Production undoubtedly will double in 1942. Letter follows"

Plaintiffs' Exhibit No. 131—(Continued)

Our mill has been completely rebuilt and we have centralized power plant. The "bugs" have been removed much better than expected. As yet we are not trying to crowd the mill, or even put it up to the production that it will take. We have gathered considerable data and are positive that we will soon be producing over 5000 lbs. per week. Our product is over 85% pure, i.e. V_2O_5.

Your quotation of $1.02 Chicago is below other offers which we have received and we are not disposed to sell for that price with better offers available. We suggest that if you desire that you submit new offer. We might be agreeable, if price is satisfactory, to contract for shipments at stated intervals of certain size.

The writer plans on being in Chicago sometime around No. 10th and will endeavor to call on you and discuss the situation.

Very truly yours,

Dan Milenski.

Inter-Office Correspondence

Apex Smelting Co.

[Crayon Note: Blanding.]

Nov. 14, 1941

From Chicago

To Continental Ore Corp.

Attention: Mr. H. J. Leir

Gentlemen:

In reply to your letter of November 13th regard-

Plaintiffs' Exhibit No. 131—(Continued)

However, should the situation change in the future, we will appreciate it if you will again get in touch with us.

Very truly yours,

APEX SMELTING CO.,
L. LIPPA.

LL:FS

Blanding Mines Company
(Of Utah)
Mail Address: P. O. Box 895, Cortez, Colorado

January 14, 1942

Continental Ore Corporation
500 Fifth Avenue
New York, N. Y.

Attention Mr. Henry J. Leir

Dear Mr. Leir:

We do not know exactly what our plans will be for the future operations of the Blanding Mill as in making these plans, we must naturally consider the views of Mr. Garbutt, the owner of the claims, for the reason that through Mr. Garbutt we secure valuable information which is working to our advantage. Our marketing is being handled principally through Mr. Garbutt and we are getting a satisfactory price which is much better than the price offered by Apex.

Possibly, in the near future, we might have

Plaintiffs' Exhibit No. 131—(Continued)

reached definite plans for future operations and if so we will advise you.

Very truly yours,

/s/ DAN MILENSKI.

DM:e

Blanding Mines Company
(Of Utah)
Mail Address: P.O. Box 895, Cortez, Colorado

(Copy) February 23, 1942

Apex Smelting Co.
2537 W. Taylor St.
Chicago, Illinois

Gentlemen:

We have your wire of February 14 and letter confirming the wire. No report was made at an earlier date for the reason that we were endeavoring to become more familiar with the situation.

As we take the letter we received from the War Department, we are not directed to sell our product to you, and as previously advised, other arrangements have been made for the sale of our product and we have informed the War Production Board that we desire to continue with our present sales arrangement.

We regret that we are unable to sell our product to you, however, you are aware of our set-up and the fact that we are merely operating under a lease. We are producing now under somewhat of a handi-

Plaintiffs' Exhibit No. 131—(Continued)

cap, for the reason of adverse climatic conditions with result of poor roads.

Very truly yours,

BLANDING MINES COMPANY,
By L. EATON,
Ass't. Secretary.

March 5, 1942

Mr. Dan Milenski
P. O. Box 895
Cortez, Colorado

Dear Mr. Milenski:

This is to confirm the telephone conversation I had with you last night, and in order to avoid any misunderstandings, I prefer to write this letter to you personally, rather than to the company.

If I understood you correctly, Mr. Garbutt, the owner of your claims, has 100 tons of ore available daily, and the Vanadium Corporation wants to buy his ore only if and when Mr. Garbutt exercises his influence on you to the effect that you give your output to the Vanadium Corporation.

This is a reversal of the entire situation, because:

A. Vanadium ore is scarce, and is becoming more and more scarce every day.

B. The Vanadium Corporation will be only too glad to have every pound from Mr. Garbutt, particularly in view of the completion of the new plant in Monticello.

Plaintiffs' Exhibit No. 131—(Continued)

Frankly speaking, it is ridiculous for Mr. Garbutt to think that he could not sell his ore to the Vanadium Corporation without including your Vanadium Pentoxide.

Garbutt himself should be convinced that the Vanadium Corporation needs him very badly, and that he could sell his output anywhere.

The fact exists that the Government is putting up the money at Monticello, and if the Vanadium Corporation is not very reasonable, Mr. Garbutt can go right to the Defense Plant Corporation in Washington, and make his deal with them directly.

The country needs Vanadium, and there is a tremendous scarcity at the present time, so that you too should consider increasing your output by all means.

It is a pity that in recent months we have had no personal contact. You will remember that whatever information we gave you proved to be correct, and if you will cooperate with us now, we will not forget it.

We repeat that, in the long run, it will be to your own advantage to keep yourself absolutely independent, and to cooperate with us as independent producers of Vanadium, rather than reduce our business now, during the emergency, which in turn means that our business after the emergency will necessarily have to suffer.

Please remember always the excellent prices you received for the export business we brought you,

Plaintiffs' Exhibit No. 131—(Continued)

and which no Vanadium Corporation will ever pay you.

With regard to the price to be applied just now, we suggested over the phone $1.125 FOB Blanding, or $1.15 FOB Chicago. If you think however that you must have $1.15 FOB Blanding, we will not object. The main thing is that you must help us to stay in business now, for your own sake as well as ours.

I think it would be relatively simple for us to intervene with the WPB. We know all the men there, and they are all trying to help our business survive against the monopoly.

However, we of course will not discuss the situation in Washington until you authorize us to make use of the remarks you made yesterday over the phone, as repeated above.

Kind personal regards.

Sincerely yours,

HENRY J. LEIR.

hjl/rk

March 20, 1942

Blanding Mines Company
P. O. Box 895
Cortez, Colorado

Attention: Mr. Dan Milenski

Gentlemen:

We received your telegram of today. We note that you are considering our proposition and that

Plaintiffs' Exhibit No. 131—(Continued)

you have 10,000 pounds on hand at the present time.

We would, of course, be willing to take these 10,000 pounds over promptly, and as soon as we have your reaction as promised in your telegram, we can send our contracts for signature.

We should appreciate your early reply since we intend to reserve some orders which we would like to fill with your material.

Very truly yours,

CONTINENTAL ORE CORPORATION.

President.

Henry J. Leir/aw

[Western Union Telegram.]

1942 Mar. 27 P.M. 6 25

NBH314 51/53 XC—Cortez, Colo. 27 217P

John Henry Leir, Contl. Ore Corp.

500 Fifth Ave.

Negotiations In Progress Submit Your Best Offer On Fused Vanadic Acid 85 Percent or Better Content FOB Our Mill. Suggest You Submit Offer For Output Over Six Month Period With Provisions of Increased Price If Market Advances We Are Producing Approximately Eleven Thousand Pounds Per Month Fifteen Thousand Pounds On Hand Answer Western Union.

DAN MILENSKI.

Vanadic 85.

[Pencil Note: 1/8"—bags freight coll.]

Plaintiffs' Exhibit No. 131—(Continued)

[Copy of Western Union Telegram.]

March 28, 1942

NLT
Blanding Mines Company
P. O. Box 895
Cortez, Colorado

Agree purchase your entire output next six months. Price until further notice 1.20 Dollars per pound Pentoxide fob truck or car your nearest station. Acid must be crushed one-eighth inch and down. We return bags freight collect. This is authorization for you to start shipments to Apex immediately. Payment as previously.

CONTINENTAL ORE CORPORATION.

[Copy of Western Union Telegram.]

1942 Mar. 20 P. M. 1 20

NBH135 39 DL XC—Cortez Colo 26 920A
Henry John Leir, Contl. Ore Corp.
500 Fifth Ave.

Your Letter of March 16 Received. Consideration Being Given to Your Suggestions. We Will Endeavor to Give Answer Shortly. Our Production For March Will Be About Twelve Thousand Pounds. Increase In Future Expected. Ten Thousand Pounds Now On Hand.

DAN MILENSKI.

Plaintiffs' Exhibit No. 131—(Continued)

Blanding Mines Company
(of Utah)

Mail Address:
P. O. Box 895
Cortez, Colorado

March 31, 1942

Mr. Henry J. Leir
Continental Ore Corp.
500 Fifth Avenue
New York, N. Y.

Dear Mr. Leir:

Thank you for the offer you wired us. The writer regrets that your terms are not sufficiently attractive.

We could not accept your offer for reasons of price and others—the others being that we have no facilities for grinding to 1/8 inch, and we do not desire to ship it so ground even if we had the facilities for grinding because the sack situation will become increasingly difficult to cope with, and we cannot furnish sacks nor containers, nor can we pay freight charges on the returned containers. Consequently, we wired you as follows: "Your offer rejected. Letter follows."

Very truly yours,

BLANDING MINES CO.,
/s/ By DAN MILENSKI,
Sec.

DM:e

[Pencil Note: Apex—Removable cover.]

Plaintiffs' Exhibit No. 131—(Continued)

May 4, 1942

Mr. Dan Milenski

I telephoned Mr. Milenski from Denver on April 21st.

They are producing 12,000 pounds of concentrates regularly per month, equal to about 9000 pounds of V_2O_5.

They have 20-25,000 pounds on hand, and if this figure is correct, it seems that they did not sell too much of their material.

I offered:

$1.17½ for lumps
$1.20 for flakes

They do not want to grind the material at all.

He promised me that he would send me a wire in Albuquerque, but I did not hear from him.

Henry J. Leir/rk

June 20, 1942

Blanding Mines Company (of Utah)
P. O. Box 299
Durango, Colorado

Attention: Mr. Fred A. Brinker, Treas.

Re: Fused Vanadium Oxide

Gentlemen:

The Apex Smelting Company forwarded your letter of June 16 to us, and we take pleasure in enclosing herewith a schedule showing the prices at present paid by the Apex Smelting Company for

Plaintiffs' Exhibit No. 131—(Continued)

fused Vanadium Oxide, with minimum 85% V_2O_5.

Please note that the material must be crushed to one-eighth inch.

We trust that you will find these prices satisfactory, and would appreciate your wiring us upon receipt of this letter what quantities we may expect from you during July.

You know that applications for allocation must be made for each month not later than the 20th of the preceding month. In principle, we should have filed an application for any shipments to be made from you during July by today. We will, of course, obtain Washington's approval, also, is we submit our request at the beginning of next week.

Therefore, please do not neglect to wire us promptly what quantity you will have available during July.

Very truly yours,

CONTINENTAL ORE CORPORATION.
President.

Henry J. Leir
b
Air Mail

June 20, 1942

Prices Paid By Apex Smelting Company
for
Vanadic Acid containing min. 85% V_2O_5
and crushed to 1/8 of an inch
f.o.b. Colorado points

Less than 3,000 pounds $1.10

Plaintiffs' Exhibit No. 131—(Continued)

Between 3,000 and 10,000 pounds $1.12½
Between 10,000 and 20,000 pounds ...$1.15

P. S. These prices are also applicable for material shipped from Thompson, Utah.

[Copy of Western Union Telegram.]

1942 Jun 23 PM 4 43

NBH268 5 XC—Durango Colo 23 134P
Contl. Ore Corp.
500 Fifth Ave.

Letter Received. Quotation Not Satisfactory.

BLANDING MINES CO.

[Copy of Western Union Telegram.]

Nightletter

June 23, 1942

Blanding Mines Company
P. O. Box 299
Durango, Colorado

Retel regret we will no longer bid for your output. If you want to do business with us at all suggest you state your conditions and give us fair opportunity to acquire at least part of your production.

CONTINENTAL ORE CORPORATION.

Plaintiffs' Exhibit No. 131—(Continued)

February 25, 1942

Blanding Mines Company
P. O. Box 895
Cortez, Colorado

Gentlemen:

Re: Vanadic Acid

We refer to our letter of January 31st.

In the meantime, we have been advised by Mr. Edwin K. Jenckes, Assistant Chief of the Vanadium Branch, WPB, that his office agrees to your shipping your output of vanadic acid to the Apex Smelting Company.

We assume that you have also been advised, and are very glad that the WPB recognized the importance of utilizing the capacity of our plant; we should very much like to come to an understanding with you regarding the conditions of our future cooperation.

Would you therefore be good enough to tell us what quantities you expect to produce during the next few months, and what price you expect.

We do not doubt that we will be able to come to a mutually satisfactory understanding.

Very truly yours,

CONTINENTAL ORE CORPORATION,
President.

Henry J. Leir/rk

PLAINTIFFS' EXHIBIT No. 132

Henry John Leipziger
New York City
15, Central Park West
Hotel Mayflower,
COlumbus 5-0060

May 11, 1939

Messrs. Vanadium Co. of America
420 Lexington Ave.
New York City

Gentlemen:

I just arrived in the States again and wish to submit you the following inquiry:

Monthly 5,000 lbs (five-thousand) of fused Vanadic Acid, containing about 90%, for delivery until the end of this year to Le Havre, France.

*Should you be interested in, please send your detailed offer by the "Europa" to Luxembourg direct, but let me have a copy to the Mayflower Hotel.

Hoping business will result, I remain, Gentlemen, with kind personal regards

Very truly yours,

*showing your complete average analysis

(Copy) May 23rd, 1939

Societe Anonyme des Minerais
Luxembourg
Europe

Gentlemen:

Your letter of May 11th was for some unknown reason delayed in reaching the writer.

Plaintiffs' Exhibit No. 132—(Continued)

With regard to quoting you on monthly quantities of Fused Vanadium Pentoxide containing about 90% V_2O_5 until the end of the year for delivery at Le Havre, France, wish to state that at present we are not quoting for extended deliveries on this material. Should you be in the market for any specific quantities for delivery within the next month or six weeks, we would be pleased to entertain your inquiries.

While, until we have this information, we will not be in position to quote you firm, our present price for this material is $1.30 per pound of contained V_2O_5 F.A.S. New York, with present freight rates allowed to Le Havre.

Should you be interested in this material we would be pleased to hear from you either by mail or cable.

Yours very truly,

Gustav Laub,
Assistant Vice President.

GL:IL

CC * * * Henry J. Leipziger
Hotel Mayflower
New York

Plaintiffs' Exhibit No. 132—(Continued)

May 30, 1939

Per SS "Queen Mary"

Messrs. Vanadium Company of America
420 Lexington Avenue
New York City
N. Y.—U.S.A.

Attention Mr. Laub
Asst. Vice President.

Gentlemen:

Vanadic Acid

Our General-Manager, Mr. Henry John Leipziger, informs us about your telephone conversation which you had with him regarding the sale of Vanadic Acid.

We duly noted your idea of price, but before taking any decision, we would need a complete analysis of your stuff as well as a sample of about 1 lb. in order to submit it to our friends.

We therefore should be glad if you would kindly give this matter your prompt attention and awaiting to hear soon from you, we are, Gentlemen,

Yours very truly,

Soc. An. Des Minerais
Administrateur-Directeur.

Plaintiffs' Exhibit No. 132—(Continued)

(Copy) June 8th, 1939

Societe Anonyme des Minerais
Luxembourg
Europe

Gentlemen:

We have your favor of May 20th which apparently crossed ours of the 23rd in transit. In accordance with your letter we are pleased to give you herewith a typical analysis of our standard Vanadium Pentoxide, Technical grade, Fused, as follows:

V_2O_5	90.10%	A1203	.21%	Ni0	none
Si02	.33	S03	.24	P205	.004%
Fe203	.18	Na20	5.84	Cu0	none

We are also, in accordance with your request, having our works forward you promptly a one-pound sample of this material for your examination.

At the present time our demands for Vanadium Pentoxide (Vanadic Acid) are rather heavy and it is requested, if you are interested, that you let us know as much in advance as possible as to your possible requirements. Just at this time we would be unable to say whether or not we could book any additional tonnage for immediate shipment but after the sample has been received and examined if you will let us know the specific quantity in which you are interested we will advise you promptly by cable as to our ability to meet your requirements.

Plaintiffs' Exhibit No. 132—(Continued)

We will be very much interested in having your comments with regard to the sample after it has been received and examined.

Yours very truly,

GUSTAV LAUB, IL,
Assistant Vice President.

GL:IL

cc: Mr. Henry J. Leipziger
Hotel Mayflower
New York City

[Letterhead of Vanadium Corporation of America]

Mr. Henry J. Leipziger June 20th, 1939
Hotel Mayflower
New York City

Dear Mr. Leipziger:

Since missing you last week I have endeavored on various occasions to reach you by phone at the Mayflower Hotel but have been unsuccessful.

Just want to let you know that the sample of Vanadic Acid (Vanadium Pentoxide) has been forwarded to the Societe Anonyme des Minerais at Luxembourg, as per my letter of June 8th, and we shall be pleased to hear from them further just as soon as they have examined the sample.

As explained to you previously our commitments are very heavy at the present time and we would

Plaintiffs' Exhibit No. 132—(Continued)

ask that you kindly have your principals anticipate their needs and requirements as much as possible.

Should you again be in this vicinity would be pleased to have you drop in. Inasmuch as I am out of the office a great deal, however, would appreciate your telephoning so that a definite appointment can be made.

Yours very truly,

/s/ GUSTAV LAUB,
Assistant Vice President.

GL:IL

(724)

CONTINENTAL ORE CORPORATION
500 FIFTH AVENUE
NEW YORK

CABLE ADDRESS
LATIMORE
CODES:
A. B. C. 5TH EDITION
ACME 8 SUPPLY.

TELEPHONE:
LACKAWANNA 4-2225

July 28, 1939.

The Vanadium Corporation of America,
Graybar Building, 420 Lexington Ave.,
New York City.

Gentlemen,

Attention: Mr. G. Laub.

Please let us know whether you are in a position to supply us with Vanadic Acid corresponding to the following description:

V205	minimum	90.-%
Fe203	maximum	3.-%
Si02	"	1.-%
Mo03	"	0.2%
W03	"	0.2%
As203	"	0.2%

the balance up to 100% consisting of Na20 and loss on ignition.

This material should be crushed to minus 14-mesh Tyler.

We hope you can submit us a favorable price for this material of which we need 10.000 lbs. a year. (2 shipments of 5000 lbs. each).

Should you be interested in this business please let us have your complete analysis and a sample of 1 lb., together with your lowest price, delivered Buffalo.

We shall be glad to hear from you soon, and remain,

Yours very truly,

CONTINENTAL ORE CORPORATION.

Paul M. Hirschland.

PMH/LL..

Received
JUL 31 1939

053

Plaintiffs' Exhibit No. 132—(Continued)

[Letterhead of Continental Ore Corporation]

Mr. G. Laub, August 8, 1939
The Vanadium Corporation of America,
Graybar Building,
420 Lexington Avenue,
New York City.

Dear Mr. Laub:

With reference to our inquiry of July 28th and with reference to our telephone conversation of yesterday we have not yet received the offer you were kind enough to advise.

Yours very truly,

CONTINENTAL ORE CORPORATION,
/s/ PAUL M. HIRSCHLAND.

PMH:TH

[Letterhead of Continental Ore Corporation]

October 17th, 1939

The Vanadium Corporation of America
420 Lexington Avenue
New York, N. Y.

Re: Vanadic Acid.

Gentleman:

Please let us have your best offer for

1) 5000 lbs. of Vanadic Acid, air or gas dried.

2) 4000 lbs. of Ferro Vanadium, 50% V: maximum 0.5% C.

Plaintiffs' Exhibit No. 132—(Continued)

3) 3000 lbs of Ammonium Metavandate.

Both materials are destined for export to Belgium.

Looking forward to your reply, we remain

Yours very truly,

CONTINENTAL ORE CORPORATION,
/s/ PAUL M. HIRSCHLAND.
PMH:k

October 18th 1939

Continental Ore Corporation
500 Fifth Avenue
New York City

Attention: Mr. Paul M. Hirschland.

Gentlemen:

In reply to your letter of October 17th requesting offers on Vanadic Acid, Ferro Vanadium, and Ammonium Meta Vanadate, for export to Belgium, regret to advise that in view of our present heavy commitments we are unable to quote you on these materials at the present time.

Should our situation change within the near future we shall be pleased to get in touch with you.

Yours very truly,

Assistant Vice President.

GL:IL

Plaintiffs' Exhibit No. 132—(Continued)

[Letterhead of Continental Ore Corporation]

June 16, 1941

Vanadium Corporation of America
420 Lexington Avenue
New York City

Attention: Mr. Gustav Laub, Vice President.

Gentlemen:

As you know, the Apex Smelting Company of Chicago has been in the aluminum smelting business for more than 20 years.

Last year they entered into the production of certain ferro alloys by the alumino-thermic process, and have created good facilities for this particular manufacture which, if necessary, could be easily enlarged.

Would you be interested in "farming out" a certain quantity of vanadic acid, and allow us to convert it for your account into low carbon ferro vanadium?

We shall be awaiting the pleasure of your reply to the above suggestion, and hold ourselves at your disposal for any personal discussion you might like to have on this subject.

Yours very truly,

CONTINENTAL ORE CORPORATION,
/s/ HENRY J. LEIR,
President.

Henry J. Leir/re

Plaintiffs' Exhibit No. 132—(Continued)

[Letterhead of Vanadium Corporation of America]

June 18, 1941

Continental Ore Corporation
500 Fifth Avenue
New York, New York

Attention: Mr. Henry J. Leir, President.

Gentlemen:

In response to your letter of June 16th wish to advise that we would not be interested in your proposition of furnishing you with Vanadic Acid for conversion into Ferro Vanadium as all of our production is consumed in the manufacture of our own products.

We thank you, however, for having referred the matter to us.

Yours very truly,

/s/ GUSTAV LAUB,
Assistant Vice President.

GL:ESW

CONTINENTAL ORE CORPORATION
500 FIFTH AVENUE
NEW YORK

AGENTS OF
APEX SMELTING CO.
CHICAGO, ILL.
PRODUCERS OF FERRO-ALLOYS

June 21, 1941

Vanadium Corp. of America
420 Lexington Avenue
New York City

Attention: Mr. Gustav Laub, Assistant Vice President

Gentlemen:

We received your letter of June 18th.

Just for the record, may we state again that we did not ask you to furnish us with your Vanadic Acid for our own use.

We offered you our facilities in Chicago for the purpose of converting your material for your account, on a toll basis. In other words, we would return the finished ferro to you.

Very truly yours,

CONTINENTAL ORE CORPORATION

President

Henry J. Leir/re

Plaintiffs' Exhibit No. 132—(Continued)

Office of Production Management
Social Security Building, Washington, D. C.

Continental Ore Corporation
500 Fifth Avenue
New York, New York

July 16, 1941

Attention: Mr. Henry J. Leir

Subject: Vanadium

Dear Mr. Leir:

Your favor dated July 7th, addressed to Mr. A. D. Whiteside, has been referred for attention to the undersigned.

I regret to advise that I am informed by the Vanadium Corporation of America and also the U. S. Vanadium Corporation that they have no vanadic acid for disposal since they are themselves using all of the acid they produce either in their production of ferro-vanadium or to supply their own customers using vanadium for defense and essential purposes.

Very truly yours,

/s/ H. K. MASTERS,
H. K. MASTERS,
Chief Vanadium Section.

PLAINTIFFS' EXHIBIT No. 144

Defense Plant Corporation — Dec. 13, 1941
RFC Subsidiary
Washington, D. C.

Gentlemen:

We understand that you are erecting a new plant near Monticello, Utah for the production of Vanadium Pentoxide.

To the best of our knowledge, outside of the U. S. Vanadium Corporation of America, (and Vanadium Corp.)*, we are the only producer of Ferro Vanadium in this country.

Our plant for the production of ferro alloys was built in 1930, and since then, we have been producing an excellent quality of Ferro Vanadium, which is being well received.

However, we cannot make use of all of our production facilities due to the lack of raw material which is fused vanadium pentoxide, and therefore, we would appreciate greatly if you would make it possible for us to secure from the new plant a reasonable tonnage of the Vanadium Pentoxide for conversion into Ferro Vanadium.

We shall welcome advice from you as to whether this would be possible.

Very truly yours,

APEX SMELTING CO.
L. Lippa.

LL:FS
CC: Continental Ore Corp.
Floyd B. Odlum.

*Pencil note.

Plaintiffs' Exhibit No. 144—(Continued)

Continental Ore Corporation

Date: 12/8/41.

To: Apex Smelting Company.

You probably read, about 4 weeks ago, that the:

Defense Plant Corp.
RFC Subsidiary

has made an agreement with the Vanadium Corp. of America for the construction of a new vanadic acid plant at Monticello, Utah.

In order to avoid any misunderstandings, this plant is the property of the Defense Plant Corp., and will only be managed by the Vanadium Corp.

Therefore, it is probable that you can secure certain quantities of vanadic acid from this plant, and we recommend that you send a letter to Washington as per the copy herewith enclosed.

A copy of your letter should also be sent to the office of:

Mr. Floyd B. Odlum, Director
Division of Contract Distribution
OPM
Washington, D. C.

CONTINENTAL ORE CORPORATION,
/s/ HENRY J. LEIR.

Henry J. Leir/rk

[Pencil Note: Wrote to Defense Plant Corp. also Odlum. Copies to Cont'l.]

Plaintiffs' Exhibit No. 144—(Continued)

Continental Ore Corporation

Date: 12/9/41.

To: Apex Smelting Company.

Subject: Defense Plant Corporation.

We refer to your letter of yesterday, and want to remind you of the letter which the Division of Contract Distribution sent to us on September 19th.

For your convenience, we are enclosing another copy.

It might be a good idea for you to refer to this letter, when sending them the copy of yours to the Defense Plant Corp.

There is no question but that you are entitled to some of this vanadic acid for conversion.

You will agree with us that it would be very desirable to receive material from the Defense Plant Corp., because it certainly would arrive in full carloads, and everything would be very simple.

In any case, we hope that your new ferro department will be able to handle easily 50-100,000 pounds per month.

CONTINENTAL ORE CORPORATION,
/s/ HENRY J. LEIR.

Henry J. Leir/rk

Plaintiffs' Exhibit No. 144—(Continued)

(Copy)

Office of Production Management
Social Security Building, Washington, D. C.

Mr. Henry J. Leir
Continental Ore Corp.
500 Fifth Avenue
New York, N. Y.

September 19, 1941

Dear Mr. Leir:

Thank you for your letter to Mr. Odlum of September 15, giving your views on the Vanadium industry, and requesting that same be made known to the Reconstruction Finance Corporation and to Mr. Harris K. Masters of the OPM. This has been done.

Very truly yours,

WEBB WARE TRIMBLE,
Assistant Financial Consultant,
Division of Contract Distribution.

Chicago
Continental Ore Corp.

Dec. 13, 1941

Attention: Mr. H. J. Leir

Gentlemen:

We have your letter of December 9th, and we wish to advise that we have written to both the Defense Plant Corporation and Mr. Odlum, in accordance with your suggestion.

Plaintiffs' Exhibit No. 144—(Continued)

Copies of these letters are enclosed.

Very truly yours,

LL:FS
Enc. 2

Dec. 13, 1941

Mr. Floyd B. Odlum, Director
Division of Contract Distribution
OPM
Washington, D. C.

Dear Sir:

We are enclosing a copy of letter sent to the Defense Plant Corporation today.

Your efforts in our behalf will be very much appreciated.

Very truly yours,

APEX SMELTING CO.,
L. Lippa.

LL:FS
Enc.

PLAINTIFFS' EXHIBIT No. 146

[Pencil Note]

Date: 1/3/42.
Name: Vanadium Dept. OPM.
City: Wash. D. C.
Interviewed: Mr. Jenckes.

Our Call—Vanadium on strictly allocation basis both as to purchase and sales. At present other

Plaintiffs' Exhibit No. 146—(Continued)

producers have received permission to shy up to 50% of orders. We are to write a letter stating inventory and unfilled orders for January. He will mail us order & regulations. Turned him over to Mr. Lippa for further telephone conversation.

[Pencil Notes: Jenckes. Up to 50% of orders. Letters stating orders on book for Jan. del. Inventory as of today.]

Mr. H. K. Masters, December 26, 1941
Vanadium Div.,
Office of Production Management,
New Social Security Building,
Washington, D. C.

Dear Mr. Masters:

We are writing this letter at the suggestion of Mr. John W. Snyder, Executive Vice-President, of the Defense Plant Corporation, requesting permission to continue the purchasing of Vanadic Pentoxide for our Ferro Vanadium Department.

This material is used by us in the production of Ferro Vanadium and Vanadium compound, which we sell to steel mills throughout the country.

Our production of Ferro Vanadium is in a special low carbon form with the following general characteristics:

V	70 to 80%
C	0.2%

Our capacity for the production of this material

Plaintiffs' Exhibit No. 146—(Continued)

is about 50,000 to 60,000# of V contained per month, but at the present time we are producing only a fraction of this capacity due to lack of raw material.

Our present sources of supply are—

Blanding Mines Co., P. O. Box 895, Cortez, Colo.

Nisley & Wilson Vanadium Mills, Gateway, Colo.

S. W. Shattuck Chemical Co., 231 S. LaSalle St., Chicago, Ill. (North Continental Mining Co. of Montrose, Colo.)

We would appreciate receiving permission from you to continue the purchasing of Vanadic Pentoxide from these sources, and wish to place our facilities at the disposal of your Department for the conversion of any additional quantities of Vanadic Pentoxide that you might see fit to allocate to us.

We, of course, will ship Vanadium to the steel mills only upon authorization from your Department.

Very truly yours,

APEX SMELTING CO.

WRB/r

Pencil Note: For Vanadium Allocation. H. K. Masters, OPM, SS Bldg., Wash. At suggestion of Mr. John W. Snyder, Exec. V.P., Defense Plant Corp.

Plaintiffs' Exhibit No. 146—(Continued)

Continental Ore Corporation

Date: 12/24/41.

To: Apex Smelting Company.

Subject: General Preference Order M-23-a—Vanadium.

Now that we have come to the point where our business might be running smoothly, the new regulations come into effect. We must, of course, adhere to them.

Enclosed please find copies of the letters we sent out today to:

Atlas Steels
Dominion Foundries
Latrobe Electric Steel
Braeburn

With regard to your own position (receiving raw material, which is also under allocation now) we recommend that you write a letter to Washington similar to the enclosed draft . . . addressed to:

Vanadium Branch
Office of Production Management
Social Security Building
Washington, D. C.

as designated at the end of the General Preference Order.

CONTINENTAL ORE CORPORATION
/s/ HENRY J. LEIR.

Henry J. Leir/rk

Plaintiffs' Exhibit No. 146—(Continued)

Vanadium Branch
Office of Production Management
Social Security Building
Washington, D. C.

Gentlemen:

Re: General Preference Order M-23-a—Vanadium.

We have read the above preference order. As you know, we are producing Ferro-Vanadium, and have bought our Vanadic Acid (Vanadium Pentoxide) in the past from the following:

1. Blanding Mines Co., P. O. Box 895, Cortez, Colorado.

2. Nisley & Wilson Vanadium Mills, Gateway, Colorado.

3. S. W. Shattuck Chemical Co., 251 S. La Salle St., Chicago (North Continental Mining Co. of Montrose, Colo.).

We think it would simplify matters if you were to authorize us to continue receiving Vanadium Pentoxide from those sources.

It is understood of course that we will make no shipments of either Vanadium Oxide or Ferro Vanadium from here, unless specifically authorized by you, according to the text of the Order.

We cannot close this letter without calling your attention to the following: We started production of Ferro Vanadium in 1939, and our specialty is a low-carbon Ferro Vanadium with the following characteristics:

Plaintiffs' Exhibit No. 146—(Continued)

V 70-80%
C max. 0.2%

This Ferro Vanadium has received an excellent reception from leading steel mills.

Our capacity is about 50-60,000 pounds V per month, but we are producing only a fraction of it, because of lack of raw material.

We should very much appreciate your taking steps to allocate to us some more Vanadium Oxide for the purpose of converting it into this high grade Ferro Vanadium.

As far as we can see, the production of Ferro Vanadium has been mainly localized to two very big outfits in the country, and we think we are not asking too much if we apply to you for a better distribution of the available Vanadium Oxide, all the more as the Government is spending a lot of money for new production facilities and road construction out West.

We hope to hear from you favorably and assure you of our desire to cooperate with you to the fullest extent.

Very truly yours,

P.S. With new alloy steel plants being erected in Chicago, for instance, and Granite City, we think it is only logical for our little smelting plant in Chicago to be favored, which will help to eliminate unnecessary traffic back and forth.

PLAINTIFFS' EXHIBIT No. 149

[Penciled date: July 6, 1939.]

The Secretary submitted Appropriation Request No. SMP-3, dated July 6, 1939, in the amount of $7,000 to cover the estimated cost of Air Separator Table Installation at the Piney River plant of the Southern Mineral Products Corporation. After discussion, on motion regularly moved, seconded and carried, it was unanimously

Resolved, that Request for Appropriation No. SMP-3, in the amount of $7,000 covering the estimated cost of Air Separator Table Installation at the Piney River, Va. plant of the Southern Mineral Products Corporation, be and is hereby approved, as recommended by the President.

The President advised that certain claims of the Vanadium Corporation of America located in Colorado were adjacent to claims of the United States Vanadium Corporation and that in view of the present mining operations of the United States Vanadium Corporation, said corporation is willing to mine and mill the ore on one particular claim, namely, the "Maggie C", or any other claim or claims that might later be agreed upon, delivering the product therefrom (oxide containing a minimum V_2O_5 content of 85%) to our Bridgeville, Pa. plant at a delivered price to be accepted if satisfactory to the Vanadium Corporation of America. He requested authority to enter into an agreement

Plaintiffs' Exhibit No. 149—(Continued)

that would provide for the delivery of such ore at an agreed upon price. After a general discussion, on motion regularly moved, seconded and unanimously carried, the President was authorized to entered into an agreement, as outlined above, with the United States Vanadium Corporation.

After a general discussion of the affairs of the Corporation and business conditions, on motion regularly moved, seconded and carried, the meeting thereupon adjourned.

/s/ P. J. GIBBONS,
Secretary.

(Copy)

Memorandum

U.S.V.C. agrees to mine the ore from the Maggie C Claim situated in Lower Park, near Uravan, Colorado, owned by V.C. and such other claims now owned by V.C. in the vicinity of Uravan, Colorado, as the parties from time to time agree upon, to mill such ore and produce therefrom fused V_2O_5 analyzing 85% V_2O_5 minimum (hereinafter called oxide) and to deliver thirty thousand (30,000) pounds per month of oxide so produced to V.C., f.o.b. its Bridgeville, Pa. Plant. Additional quantities of oxide may be delivered in any month by agreement of the parties as advance deliveries of oxide from ore to be mined and milled hereunder. During the period covered by this agreement U.S.

Plaintiffs' Exhibit No. 149—(Continued)

V.C. shall have the sole right to mine and mill the ore from the aforesaid claim or claims.

The ore shall be mined and milled by the standard methods then being used by U.S.V.C. on its own production. U.S.V.C. shall not be required to mine and mill the ore separately from its own production but may mix the ore with its own ore. Accurate records shall be kept by U.S.V.C. of all of the weights and analysis of all ore mined and milled in accordance with methods to be mutually agreed upon and U.S.V.C. shall deliver to V.C. seventy-five per cent (75%) of the V_2O_5 content of the ore of V.C. mined by it.

In addition to records of weights and analysis, U.S.V.C. will make available upon request of V.C. the diamond drill records and other development data that may accrue during the course of ordinary development and mining of the aforesaid claim or claims.

If V.C. does not require the oxide produced from the ore in the aforesaid claim or claims V.C. may require all shipments of oxide hereunder to be suspended upon three (3) months' written notice to U.S.V.C. and may cause shipments to be resumed upon thirty (30) days' written notice to U.S.V.C. During the time that shipments are suspended U.S. V.C. shall have the right, but shall not be obligated, to continue mining ore and producing fused V_2O_5 therefrom, retaining such ore for future milling

Plaintiffs' Exhibit No. 149—(Continued)

and any oxide derived therefrom for future shipments to V.C. The suspension of shipments in any month shall not give V.C. the right to require shipments to be increased in any subsequent month over thirty thousand (30,000 pounds) except with the consent of U.S.V.C.

V.C. will pay to U.S.V.C. for mining and milling ore hereunder on the following basis: Sixty-five (65c) cents per pound of V_2O_5 contained as delivered f.o.b. at Bridgeville Plant of V.C.

If the cost to U.S.V.C. of labor, fuel or supplies used in mining ore or producing oxide hereunder should be increased U.S.V.C. may increase the price to be paid by V.C. hereunder by the amount of such increased cost, by giving three (3) months' prior written notice to V.C. If such increased price is not acceptable to V.C. it may terminate this agreement at the time such increased price is to become effective by giving not less than sixty (60) days' prior written notice of such termination to U.S.V.C.

If at any time U.S.V.C. has not mined sufficient ore belonging to V.C. to produce the oxide required to be delivered to V.C. hereunder, it may deliver such oxide produced from other ore at 65c per pound V_2O_5 as aforesaid, and in such event U.S. V.C. may take title to a quantity of ore subsequently mined by it from the aforesaid claim or claims of V.C. sufficient to produce a quantity of

Plaintiffs' Exhibit No. 149—(Continued)

oxide equivalent to the quantity produced from such other ore.

This agreement shall continue for a period of five (5) years from the date hereof unless sooner terminated as herein provided. After termination of this agreement U.S.V.C. shall have the right to produce and deliver oxides to V.C. from any ore mined by U.S.V.C. from the aforesaid claim or claims of V.C. prior to termination. Such deliveries, however, to be taken by V.C. in as nearly equal monthly amounts as possible. If at the time of termination U.S.V.C. has delivered to V.C. any oxide produced from ore other than the ore mined by it from the aforesaid claim or claims of V.C. and has not taken title to an equivalent amount of ore mined by it from the aforesaid claim or claims of V.C., U.S.VC., after termination of this agreement, may mine for itself, and take title to, a quantity of ore from the aforesaid claim or claims of V.C. sufficient to produce a quantity of oxide equivalent to such quantity produced from such other ore and delivered to V.C. V.C. may, at its option, upon giving prior written notice to U.S.V.C., mine such ore itself and deliver such ore to U.S.V.C.

Dated: 6/30/39.

/s/ E. D. BRANSOME,
Pres., Vanadium Corp. of America.

/s/ J. R. VAN FLEET,
V. P., U. S. Vanadium Corp.

Plaintiffs' Exhibit No. 149—(Continued)

[Letterhead United States Vanadium Corporation]

[Handwritten: R. B. note and return. R. B., 10/8/41.]

September 26, 1941

Vanadium Corporation of America,
No. 420 Lexington Avenue,
New York, New York.

Gentlemen:

In connection with and as part of the delivery of the contract being made between us this date, with respect to the so-called Dry Valley mining claims; we agree that such Agreement settles all claims of ours against you for oxide, and that we will remove all the ore referred to in Paragraph 2 of said Agreement not later than June 1, 1942, subject to delays caused by Acts of God, strikes, labor troubles, accidents, Governmental regulations, or other causes of a similar or different nature beyond our reasonable control, or forfeit all right on that date to remove any more of such ore.

The record of the Custom Milling Account as of September 1, 1941, shows a deficiency of ore from which to recover 294,447 pounds of V_2O_5. We have extracted ore from the Dry Valley property up to September 1, 1941, amounting to 4,177.82 tons containing approximately 120,823 pounds recoverable V_2O_5. The deficit in V_2O_5, therefore, would be 173,624 pounds as of September 1, 1941.

The adjustment of the cost of permanent im-

Plaintiffs' Exhibit No. 149—(Continued)

provements left on the Dry Valley property had best remain open until the ore to make up the deficiency in V_2O_5 has been extracted. Up to the present time the cost of permanent improvements such as ore bins, roads, etc., has amounted to less than $1,000 and it is not certain just which of these improvements will be of value after the allotted ore has been extracted.

We have discontinued working the Republican, Donald L. and Maggie C. claims, and are turning them back to you for occupancy. We have no further mining rights on those claims.

The total amount of money to be returned to us upon delivery of the Dry Valley agreement is—$41,785.39 made up as follows:

Advance to Leverett Davis, March 31, 1941	$25,000.00
Molybdenum Corporation of America, July 1, 1941	15,000.00
Molybdenum Corporation of America, royalties, September 17, 1941	1,785.39
Total	$41,785.39

The royalty payment to Molybdenum Corporation of America is, of course, an advance on the next

Plaintiffs' Exhibit No. 149—(Continued)

payment due under their Agreement dated June 26, 1939.

Very truly yours,

/s/ J. R. VAN FLEET,
Vice President.

EM/J. R. Van Fleet
USVC

[Handwritten: O.K., E. D. Burwell.]

Vanadium Corporation of America, New York, N.Y.

(Copy)

Mr. John R. Van Fleet September 1, 1939
Vice-President & General Manager
United States Vanadium Corporation
30 East 42nd Street
New York, N. Y.

Dear Mr. Van Fleet:

In reference to the working of the Maggie C claim at Long Park, and before any ore is extracted from that claim underground, we would like to survey the workings from the Coloradium incline which are on the Maggie C, and that part of the workings on claims contiguous to the Maggie C and Donald L claims which are closest to those claims. Mr. Sterling, Sr. will be at Long Park some time this month, and we would appreciate it if you will arrange for permission for him to make this survey. Of course, so as not to inconvenience you, we

Plaintiffs' Exhibit No. 149—(Continued)

would expect to do this work either at night or on a weekend when no mining operations were being carried on.

We have instructed Robert Sterling, Jr., who is looking after our diamond drilling at Long Park, to send us monthly reports covering current operations on the Maggie C, including your figures as to tonnage and grade of ore mined from that claim. We assume that this information is available to him at Uravan.

Yours very truly,

FREDERICK F. KETT,
General Manager, Mining Division.

FFK:S

[Letterhead United States Vanadium Corporation]

Mr. Frederick F. Kett September 6, 1939
General Manager, Mining Division
Vanadium Corporation of America
420 Lexington Avenue
New York, N. Y.

Dear Kett:

I wish to acknowledge your letter of September 1 in reference to making an inspection of the Maggie C through the Coloradium and Donald L workings.

There can be no possible objection to this, and

Plaintiffs' Exhibit No. 149—(Continued)

I have written to Mr. Haldane to assist Mr. Sterling in every way possible on such an inspection.

Very truly yours,

/s/ J. R. VAN FLEET,
Vice President & General Manager.

J. R. Van Fleet/mm
USV

September 22, 1939

Mr. J. R. Van Fleet, Vice President,
United States Vanadium Corporation,
30 East 42nd Street,
New York, N. Y.

Dear Mr. Van Fleet:

This is to advise you that I have notified our people to authorize United States Vanadium Corporation to enter on our claims of the Donald L and Republican located in Long Park, of which we have spoken in a recent meeting.

I understand that there has been some dispute as to location of claims in respect to the Republican claim. In accordance with our telephone conversation of today, it is agreed that the above authorization will not prejudice our position in respect to the Republican claim in any manner.

Very truly yours,

EDB/C

Copy to Messrs. F. F. Kett, Robert Sterling, P. J. Gibbons.

Plaintiffs' Exhibit No. 149—(Continued)

United States Vanadium Corporation
Uravan, Colorado

Mr. Robert Sterling, Jr. October 5, 1939
Uravan, Colorado

Dear Sir:

We are enclosing herewith report covering the Maggie C and V.C.A. Stockpile operation for the month of September, 1939.

Yours very truly,

UNITED STATES VANADIUM CORPORATION,
/s/ W. G. HALDANE,
Superintendent.

W. G. Haldane/ms
Enc.

(Copy)

United States Vanadium Corporation
Uravan, Colorado

Mr. Robert Sterling, Jr. December 8, 1939
Uravan, Colorado

Dear Sir:

Please find enclosed our report on Maggie C operation for month of November, 1939.

Yours very truly,

UNITED STATES VANADIUM CORPORATION,
/s/ W. G. HALDANE,
Superintendent.

W. G. Haldane/ms
Enc. 1

VOLUME VII

TRANSCRIPT OF RECORD

Supreme Court of the United States

OCTOBER TERM, 1961

No. 304

CONTINENTAL ORE COMPANY, ET AL.,
PETITIONERS,

vs.

UNION CARBIDE AND CARBON
CORPORATION, ET AL.

ON WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

PETITION FOR CERTIORARI FILED AUGUST 11, 1961
CERTIORARI GRANTED OCTOBER 23, 1961

Plaintiffs' Exhibit No. 149—(Continued)

United States Vanadium Corporation
Uravan, Colorado

October 11, 1940

Vanadium Corporation of America
Boulder, Colorado

Attention: Mr. Robert Sterling

Gentlemen:

Please find herewith report covering production from Maggie "C", et al properties for the month of September, 1940.

Referring also to your inquiry under date of the 28th ultimo, please be advised that no distribution has been made on our part, between the Maggie "C" and Donald L; we built one bin to handle the surface production from the former and a second bin to keep the ores from the underground production of the Maggie "C" and Donald L separate from our Coloradium, since all were mined through the same entry.

A breakdown of the Maggie "C" and Republican tonnage beginning with January, 1940 settlements may best be clarified by referring to your files covering same, as follows:

January—All Maggie "C".
February—All Maggie "C".
March—All Maggie "C".
April—Last two loads on settlement under dates

No. 16149

United States
Court of Appeals
for the Ninth Circuit

CONTINENTAL ORE COMPANY, a Partnership, and HENRY J. LEIR, ERNA D. LEIR, LINA SCHLOSS, as Individuals and as partners under the trade name and style of CONTINENTAL ORE COMPANY,

Appellants,

vs.

UNION CARBIDE AND CARBON CORPORATION; UNITED STATES VANADIUM CORPORATION; ELECTRO METALLURGICAL COMPANY; ELECTRA METALLURGICAL SALES CORPORATION; ELECTRO METALLURGICAL COMPANY OF CANADA, LIMITED; VANADIUM CORPORATION OF AMERICA,

Appellees.

Transcript of Record

In Seven Volumes

VOLUME VII.

Book of Exhibits

(Pages 2311 to 2564, inclusive)

Appeal from the United States District Court
for the Northern District of California,
Southern Division

Plaintiffs' Exhibit No. 149—(Continued)

4/22 & 4/25 total 39.945 tons are Republican, balance Maggie "C".

May—Maggie "C" production is shown on 1st page of settlement—total 374.08 tons, Republican on second sheet—total 165.84 tons.

June—Maggie "C" production is represented by the 1st group of figures dated 6/1 to 6/28 incl. and totaling 293.750 tons: the balance starting under date of 6/10 to 6/25 inclusive—total 91.105 tons represents production from the Republican.

From June 28 to the present we have mined no ore from the Republican claim and the tonnage shown in the reports represent Maggie "C" production.

In late August and early September we ran a development drift in low grade ore in the Donald L, but no ore of shipping grade was produced.

We trust this gives you the information desired, and beg to remain

Yours very truly,

UNITED STATES VANADIUM CORPORATION,
/s/ W. G. HALDANE,
Superintendent.

W. G. Haldane/ms
Enc. 2

Plaintiffs' Exhibit No. 149--(Continued)

UNITED STATES VANADIUM CORPORATION

Uravan, Colorado

(760)

November 8, 1940

MINING AND MILLING "MAGGIE C" AND OTHER V.C.A. ORES

October, 1940

All Maggie "C"

Date	Tons Hauled	Analysis V_2O_5	Lbs. V_2O_5
9/30	8.700	1.62	281.88
10/1	10.625	3.04	646.00
3	10.450	3.40	710.60
7	10.400	2.30	478.40
7	10.575	1.70	359.55
8	11.075	1.80	398.70
10	10.650	2.06	438.78
10	10.150	1.88	381.64
12	10.250	1.52	311.60
15	8.350	1.62	270.54
16	9.525	1.40	266.70
17	10.350	2.46	509.22
19	9.100	2.78	505.96
19	9.600	2.14	410.88
22	8.350	2.40	400.80
24	8.425	2.82	475.17
25	8.725	1.82	319.11
26	10.350	3.00	621.00
29	10.025	1.70	340.85
31	7.775	2.14	332.77
	193.450	2.19	8460.45

Extraction - 75% Recovery 6345.338

Previously Extracted 404118.894

Total Lbs. extracted to 11/1/40 410464.232

Shipped to November 1, 1940 . . . . . 717840.00 lbs.

Superintendent

UNITED STATES VANADIUM CORPORATION

Plaintiffs' Exhibit No. 149--(Continued)

716

UNITED STATES VANADIUM CORPORATION

URAVAN, COLORADO

RECEIVED
NOV 12 1940
V. C. of A.

November 9, 1940

Vanadium Corporation of America
Naturita, Colorado

Gentlemen:

We enclose herewith original and copy of Maggie "C" tonnage for the month of October, 1940.

Yours very truly,

UNITED STATES VANADIUM CORPORATION

W. Waldane

Superintendent

MS/W.G.Waldane

C
O
P
Y

UNITED STATES VANADIUM CORPORATION

Uravan, Colorado

November 8, 1940

MINING AND MILLING "MAGGIE C" AND OTHER V.C.A. ORES

October, 1940

All Maggie "C"

Date	Tons Hauled	Analysis V_2O_5	Lbs. V_2O_5
9/30	8.700	1.62	281.88
10/1	10.625	3.04	646.00
3	10.450	3.40	710.60
7	10.400	2.30	478.40
7	10.575	1.70	359.55
8	11.075	1.80	398.70
10	10.650	2.06	438.78
10	10.150	1.88	381.64
12	10.250	1.52	311.60
15	8.350	1.62	270.54
16	9.525	1.40	266.70
17	10.350	2.46	509.22
19	9.100	2.78	505.96
19	9.600	2.14	410.88
22	8.350	2.40	400.80
24	8.425	2.82	475.17
25	8.725	1.82	319.41
26	10.350	3.00	621.00
29	10.025	1.70	340.85
31	7.775	2.14	332.77
	193.450		8460.45

Extraction - 75% Recovery 6345.338

Previously Extracted 404118.894

Total Lbs. extracted to 11/1/40 410464.232

Shipped to November 1, 1940 . . . . . 717848.00 lbs.

(Signed) W. G. Haldane
Superintendent

UNITED STATES VANADIUM CORPORATION

225

87.00
106.25
104.50
104.00
105.75
110.75
106.50
101.50
102.50
83.50
95.25
103.50
91.00
96.00
83.50
84.25
87.25
103.50
100.25
77.75

[illegible]
281.58
646.00
710.60
478.40
359.55
398.70
438.78
381.64
311.60
270.54
266.70
509.22
505.98
2-
410.88
400.80
475.17
319.41
621.00
340.55
332.77

[illegible]
63.453.38
4.041.188.94

[illegible]
[illegible]

053

Plaintiffs' Exhibit No. 149--(Continued

(759)

UNITED STATES VANADIUM CORPORATION

Uravan, Colorado

December 4, 1940

MINING AND MILLING "MAGGIE C" OTHER V.C.A. ORES

November, 1940

All Maggie "C"

Date	Tons Hauled	Analysis V_2O_5	Lbs. V_2O_5
11/5	7.900	1.36	214.880
5	8.800	2.26	397.760
6	9.050	1.50	271.500
8	7.500	2.08	312.000
13	9.050	1.74	314.940
13	9.100	1.54	280.280
15	8.150	1.70	277.100
16	6.500	2.30	299.000
18	10.225	2.84	580.780
21	10.500	2.00	420.000
27	8.700	2.00	348.000
28	7.675	1.75	275.025
	103.350	1.93	3991.865
Extraction - 75% Recovery			2993.899
Previously Extracted			410464.232
	Total lbs. extracted to 12/1/40		413458.131
Shipped to December 1, 1940			717848.00 lbs.

(signed) W. G. Haldane
Superintendent

UNITED STATES VANADIUM CORPORATION

Plaintiffs' Exhibit No. 149--(Continued)

714

UNITED STATES VANADIUM CORPORATION

URAVAN, COLORADO

December 6, 1940

RECEIVED
DEC 10 1940
V. C. of A.

Vanadium Corporation of America
Naturita, Colorado

Gentlemen:

We enclose herewith Maggie "C" account for the month of November, 1940.

Yours very truly,

UNITED STATES VANADIUM CORPORATION

W G Haldane

Superintendent

W.G.Haldane/ms

Enc. 2

Plaintiffs' Exhibit No. 142--(Continued)

UNITED STATES VANADIUM CORPORATION

Uravan, Colorado

December 4, 1940

MINING AND MILLING "MAGGIE C" AND OTHER V.C.A. ORES

November, 1940

All Maggie "C"

Date	Tons Hauled	Analysis V_2O_5	Lbs. V_2O_5
11/5	7.900	1.36	214.880
5	8.800	2.26	397.760
6	9.050	1.50	271.500
8	7.500	2.08	312.000
13	9.050	1.74	314.940
13	9.100	1.54	280.280
15	8.150	1.70	277.100
16	6.500	2.30	299.000
18	10.225	2.84	580.780
21	10.500	2.00	420.000
27	8.700	2.00	348.000
28	7.875	1.75	275.625
	103.350		3991.865

Extraction - 75% Recovery 2993.899

Previously Extracted 410464.232

Total lbs. extracted to 12/1/40 413458.131

Shipped to December 1, 1940 . . . . . 717848.00 lbs.

Superintendent

UNITED STATES VANADIUM CORPORATION

Plaintiffs' Exhibit No. 149--(Continued

UNITED STATES VANADIUM CORPORATION

UNIT OF UNION CARBIDE UCC AND CARBON CORPORATION

URAVAN, COLORADO

RECEIVED
JAN 8 1941
V. C. of A.

January 6, 1941

Vanadium Corporation of America
Naturita, Colorado

Gentlemen:

Our report on Maggie "C" tonnage for the month of December, 1940, is enclosed in duplicate.

Yours very truly,

UNITED STATES VANADIUM CORPORATION

W. G. Haldane

Superintendent

W.G.Haldane/ms
Enc.

Plaintiffs' Exhibit No. 149--(Continued)

UNITED STATES VANADIUM CORPORATION

Uravan, Colorado

January 6, 1941

MINING AND MILLING "MAGGIE C" AND OTHER V. C. A. ORES

December, 1940

All "Maggie C"

Date	Tons Hauled	Analysis V_2O_5	Lbs. V_2O_5
12/2	8.525	1.76	300.080
3	8.150	2.37	386.310
6	9.825	1.92	377.280
13	7.950	2.35	373.500
19	7.525	1.76	264.880
23	7.600	1.90	288.800
31	6.675	1.87	249.645
	56.250		2240.495

Extraction - 75% Recovery 1680.371

Previously Extracted 413458.131

Total Lbs. Extracted to 1/1/41 . . 415138.502

Shipped to January 1, 1941 . . . . . 717848.00 lbs.

Superintendent

UNITED STATES VANADIUM CORPORATION

Plaintiffs' Exhibit No. 149--(Continue

COPY

758

UNITED STATES VANADIUM CORPORATION

Uravan, Colorado

February 7, 1941

MINING AND MILLING "MAGGIE C" ORE

January, 1941

Date	Tons Hauled	Analysis V_2O_5	Lbs. V_2O_5
1/8/41	7.500	2.32	348.000
1/13/41	5.500	1.44	158.400
	13.000		506.400

Extraction - 75% Recovery 379.800

Previously Extracted 415138.502

Total Lbs. Extracted to 2/1/41 . . 415518.302

Shipped to February 1, 1941 . . . . . 717848.000 lbs.

(signed) W. G. Haldane m.s.
Superintendent

UNITED STATES VANADIUM CORPORATION

Plaintiffs' Exhibit No. 149--(Continued

RECEIVED
FEB 12 1941
V. C. of A.

UNITED STATES VANADIUM CORPORATION

UNIT OF UNION CARBIDE UCC AND CARBON CORPORATION

VAN, COLORADO

(712)

February 10, 1941

Vanadium Corporation of America
Naturita, Colorado

Gentlemen:

We enclose herewith original and duplicate copy of report showing tonnage mined from the Maggie "C" for the month of January, 1941.

Yours very truly,

UNITED STATES VANADIUM CORPORATION

W. G. Haldane

Superintendent

MS/W.G.Haldane
Enc.

Plaintiffs' Exhibit No. 149--(Continued)

UNITED STATES VANADIUM CORPORATION

Uravan, Colorado

February 7, 1941

MINING AND MILLING "MAGGIE C" ORE

January, 1941

Date	Tons Hauled	Analysis V_2O_5	Lbs. V_2O_5
1/8/41	7.500	2.32	348.000
1/13/41	5.500	1.44	158.400
	13.000		506.400

Extraction - 75% Recovery	379.800
Previously Extracted	415138.502
Total Lbs. Extracted to 2/1/41 . .	415518.302
Shipped to February 1, 1941	717848.000 lbs.

W. G. Haldane
Superintendent

UNITED STATES VANADIUM CORPORATION

Plaintiffs' Exhibit No. 149--(Continued)

498

RECEIVED
MAR 12 1941
V. C. of A.

UNITED STATES VANADIUM CORPORATION

UNIT OF UNION CARBIDE UCC AND CARBON CORPORATION

URAVAN, COLORADO

March 10, 1941

Vanadium Corporation of America
Naturita, Colorado

Gentlemen:

Please find herewith report covering operations on the Maggie "C", Et Al Claims for the month of February.

From our engineer's examination, we find no further ore indicated as available for mining in the underground workings; however, some ore still remains to be removed from the surface, which we will take as quickly as snow and weather conditions permit.

Yours very truly,

UNITED STATES VANADIUM CORPORATION

W G Haldane

Superintendent

W.G.Haldane/ms
Enc. 2

CC - J.R.Van Fleet
Blair Burwell

Plaintiffs' Exhibit No. 149--(Continued)

496

UNITED STATES VANADIUM CORPORATION

Uravan, Colorado

March 9, 1941

MINING AND MILLING MAGGIE "C" ORE

February, 1941

Date	Tons Hauled	Analysis V_2O_5	Lbs. V_2O_5
	NONE		

Previously Extracted to 3/1/41 . . . . . 415518.302 lbs.

Shipped to March 1, 1941 . . . . . 717848.000 "

UNITED STATES VANADIUM CORPORATION

Superintendent

Plaintiffs' Exhibit No. 149--(Continued)

C
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UNITED STATES VANADIUM CORPORATION

Uravan, Colorado

April 10, 1941

MEMO ONLY

MINING AND MILLING MAGGIE "C" ORE

Date	Tons Hauled	Analysis V_2O_5	Lbs. V_2O_5
March, 1941	NONE		

Previously extracted to 4/1/41 ..... 415,518.302 lbs.

Shipped to April 1, 1941 ..... 717,848.000 "

UNITED STATES VANADIUM CORPORATION

(signed) W. G. Haldane

Superintendent

Plaintiffs' Exhibit No. 149--(Continued)

UNITED STATES VANADIUM CORPORATION

UNIT OF UNION CARBIDE UCC AND CARBON CORPORATION

URAVAN, COLORADO

(711)

May 9, 1941

RECEIVED
V. C. of A.
MAY 12 1941
Referred to ...
Ans. ...
By ...

Vanadium Corporation of America
Naturita, Colorado

Gentlemen:

We are enclosing herewith original and copy of Maggie "C" tonnage report for the month of April, 1941.

Yours very truly,

UNITED STATES VANADIUM CORPORATION

W. G. Haldane

Superintendent

W.G.Haldane/ms
Enc.

Plaintiffs' Exhibit No. 149--(Continued)

RECEIVED
MAY 13 1941
U. S. of A.

UNITED STATES VANADIUM CORPORATION

Uravan, Colorado

May 8, 1941

MINING AND MILLING MAGGIE "C" ORE

April, 1941

Date	Tons Hauled	Analysis V_2O_5	Lbs. V_2O_5
4/22	11.375	2.16	491.400
4/30	11.400	2.46	560.880
			1052.280
Extraction - 75% Recovery			789.210
Previously Extracted			415,518.302
Total Lbs. Extracted to 5/1/41			416,307.512
Shipped to May 1, 1941			717,848.000 lbs.

UNITED STATES VANADIUM CORPORATION

Superintendent

Plaintiffs' Exhibit No. 149--(Continued)

RECEIVED
APR 14 1941
V. C. of A.

UNITED STATES VANADIUM CORPORATION

Uravan, Colorado

April 10, 1941

NLY

MINING AND MILLING MAGGIE "C" ORE

Date	Tons Hauled	Analysis V_2O_5	Lbs. V_2O_5
March, 1941	NONE		

Previously extracted to 4/1/41	415,518.302 lbs.
Shipped to April 1, 1941	717,848.000 "

UNITED STATES VANADIUM CORPORATION

W Wallace

Superintendent

Plaintiffs' Exhibit No. 149--(Continued)

UNITED STATES VANADIUM CORPORATION

UNIT OF UNION CARBIDE AND CARBON CORPORATION

URAVAN, COLORADO

RECEIVED
U. S. V. C.
JUN 12 1941
Referred to .....
" " .....
Ans. .....
By .....

June 10, 1941

Vanadium Corporation of America
Naturita, Colorado

Gentlemen:

We are enclosing herewith original and duplicate copies showing Maggie "C" production for the month of May, 1941.

Yours very truly,

UNITED STATES VANADIUM CORPORATION

W. Haldane

Superintendent

MS/W.G.Haldane
Enc.

Plaintiffs' Exhibit No. 149--(Continued)

UNITED STATES VANADIUM CORPORATION

Uravan, Colorado

June 6, 1941

MINING & MILLING MAGGIE "C" ORE

May, 1 9 4 1

Date	Tons Hauled	Analysis V_2O_5	Lbs. V_2O_5
5/7	11.500	2.77	637.100
5/19	8.200	2.92	478.880
5/23	10.125	2.60	526.500
			1642.480

Extraction - 75% Recovery 1231.860

Previously Extracted 416,307.512

Total Lbs. Extracted to 6/1/41 . . . . . 417,539.372

Shipped to June 1, 1941 . . . . . 717,848.000 lbs.

UNITED STATES VANADIUM CORPORATION

Superintendent

M

Plaintiffs' Exhibit No. 149--(Continued)

UNITED STATES VANADIUM CORPORATION

UNIT OF UNION CARBIDE AND CARBON CORPORATION

URAVAN, COLORADO

RECEIVED
V. C. of A.
JUL 14 1941
Referred to .....
.....
Ans. File
By .....

July 11, 1941

Vanadium Corporation of America
Naturita, Colorado

Gentlemen:

We are enclosing herewith Maggie "C" report covering June tonnage.

Yours very truly,

UNITED STATES VANADIUM CORPORATION

W. G. Haldane

Superintendent

W.G.Haldane/ms
Enc.

Plaintiffs' Exhibit No. 149--(Continued)

RECEIVED
JUL 14 1941
V. C. of A.

UNITED STATES VANADIUM CORPORATION
Uravan, Colorado

July 8, 1941

MINING & MILLING MAGGIE "C" ORE

June, 1941

Date	Tons Hauled	Analysis V_2O_5	Lbs. V_2O_5
6/2/41	9.625	1.42	273.35
13	8.300	2.07	343.62
14	9.925	2.27	450.60
18	8.400	2.38	399.84
20	10.775	1.71	368.51
24	7.500	1.33	199.50
30	9.375	1.30	243.75
	63.900		2279.17

Extraction - 75% Recovery 1709.38

Previously extracted 417,539.372

Total Lbs. Extracted to 7/1/41 . . . . . 419,248.752

Shipped to July 1, 1941 . . . . . 717,848.000 lbs.

UNITED STATES VANADIUM CORPORATION

W. Sullivan

Superintendent

M

Plaintiffs' Exhibit No. 149--(Continued)

RECEIVED
V. C. of A.
AUG 12 1941
Referred to .....
.. ..
Ans. .....
By .....

708

UNITED STATES VANADIUM CORPORATION

UNIT OF UNION CARBIDE UCC AND CARBON CORPORATION

URAVAN, COLORADO

Aug. 9, 1941.

Vanadium Corporation of America,
Naturita, Colorado.

Gentlemen:

We are enclosing herewith Maggie "C" report covering July tonnage.

Yours very truly,

UNITED STATES VANADIUM CORPORATION

W. C. Haldane

Superintendent

WCHaldane/v
Enc.

Plaintiffs' Exhibit No. 149--(Continued)

UNITED STATES VANADIUM CORPORATION

Uravan, Colorado.

July 9, 1941.

MINING & MILLING MAGGIE "C" ORE

July, 1941.

Date	Tons Hauled	Analysis V_2O_5	Lbs. V_2O_5
7-1-41	8.500	1.44	244.80
1	8.900	2.24	398.72
2	8.050	1.80	289.80
14	8.150	1.23	200.49
14	8.875	1.44	255.60
25	10.550	1.42	299.62
27	10.525	2.99	629.40
29	10.700	1.32	282.48
30	11.600	2.14	496.48
31	8.600	1.63	280.36
	94.450		3377.75

Extraction - 75% Recovery 2,533.31

Previously extracted 419,248.752

Total Lbs. Extracted to 8-1-41 . . . . . 421,782.062

Shipped to August 1, 1941 . . . . . 717,848.000 Lbs.

UNITED STATES VANADIUM CORPORATION

Superintendent

V

Plaintiffs' Exhibit No. 149--(Continued)

707

UNITED STATES VANADIUM CORPORATION

UNIT OF UNION CARBIDE UCC AND CARBON CORPORATION

URAVAN, COLORADO

September 8, 1941

Vanadium Corporation of America
Naturita, Colorado

Gentlemen:

We are enclosing herewith Maggie "C" report covering August tonnage.

Yours very truly,

UNITED STATES VANADIUM CORPORATION

W. G. Haldane

Superintendent

W.G.Haldane.mc
Encl.

Plaintiffs' Exhibit No. 149--(Continued)

UNITED STATES VANADIUM CORPORATION

Uravan, Colorado

September 8, 1941

MINING & MILLING MAGGIE "C" ORE

August - 1941

Date	Tons Hauled	Analysis V_2O_5	Lbs. V_2O_5
8/4	9.700	1.53	296.82
8/6	9.800	1.62	317.52
8/13	9.425	1.29	243.17
8/14	11.050	1.63	360.23
8/15	9.850	1.49	293.53
8/27	11.050	1.31	289.51
8/29	11.125	1.61	358.23
	72.000		2159.01

Extraction - 75% Recovery	1,619.26
Previously Extracted	421,782.062
Total Lbs. Extracted to 9/1/41	423,401.322
Shipped to September 1, 1941	717,848.000 Lbs.

UNITED STATES VANADIUM CORPORATION

W Goldsmith

706

UNITED STATES VANADIUM CORPORATION

UNIT OF UNION CARBIDE UCC AND CARBON CORPORATION

URAVAN, COLORADO

October 7, 1941

Vanadium Corporation of America
Naturita, Colorado

Gentlemen:

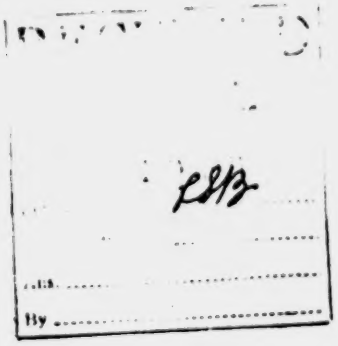
We are enclosing herewith Maggie "C" report covering September tonnage.

Yours very truly,

UNITED STATES VANADIUM CORPORATION

A.H. Coleman

Superintendent



A.H.Coleman.mc
Encl.

UNITED STATES VANADIUM CORPORATION

Uravan, Colorado

October 8, 1941

MINING & MILLING MAGGIE "C" ORE

September - 1941

Date	Tons Hauled	Analysis V_2O_5	Lbs. V_2O_5
9/4	11.100	1.76	390.72
9/10	10.625	1.45	308.13
9/10	9.975	1.71	341.15
9/16	11.175	2.04	455.94
9/19	11.775	1.43	336.77
9/25	8.925	1.43	255.26
9/26	8.650	1.49	257.77
9/29	11.025	1.49	328.55
9/30	10.375	2.08	431.60
	93.625		3105.89

Extraction - 75% Recovery	2,329.420
Previously Extracted	423,401.322
Total Lbs. Extracted to 10/1/41	425,730.742
Shipped to October 1, 1941	717,848.000 Lbs.

UNITED STATES VANADIUM CORPORATION

R H Coleman

Superintendent

mc

No. 2908

CHEF'S Exhibit No. 157

UNITED STATES ... JUN 1 8 1959 ... DISTRICT COURT

October 9th, 1941

Vanadium Corporation of America
420 Lexington Avenue
New York, New York

Re: Dry Valley Production

Gentlemen:

Re the captioned subject, please be advised that we have mined during the month of September, 1941, a total of 1390.687 tons containing 50909.17 lbs. V_2O_5.

We believe you will want the above figure at this time in connection with the Molybdenum Corporation of America contract covering Dry Valley.

Yours very truly,

A. G. Haldane

vl/A.G.Haldane
USV

Plaintiffs' Exhibit No. 150--(Continued)

254

UNITED STATES VANADIUM CORPORATION
CARBIDE AND CARBON BUILDING
30 EAST FORTY-SECOND STREET
NEW YORK

October 15, 1941

The Vanadium Corporation of America
420 Lexington Avenue
New York, N. Y.

Gentlemen:

Herewith please find statement covering Maggie "C" — Dry Valley production for September, 1941, and oblige

Yours very truly,

Assistant General Superintendent

AF/ W. G. Haldane
USVC

Attach.

Plaintiffs' Exhibit No. 150--(Continued)

UNITED STATES VANADIUM CORPORATION

Uravan, Colorado

October 13, 1941

MINING & MILLING MAGGIE "C" - DRY VALLEY ORE

September - 1941

MAGGIE "C"

Date	Tons Hauled	Analysis V_2O_5	Lbs. V_2O_5
9/4	11.100	1.76	390.72
9/10	10.625	1.45	308.13
9/10	9.975	1.71	341.15
9/16	11.175	2.04	455.94
9/19	11.775	1.43	336.77
9/25	8.925	1.43	255.26
9/26	8.650	1.49	257.77
9/29	11.025	1.49	328.55
9/30	10.375	2.08	431.60
	93.625		3105.89

DRY VALLEY

Dry Tons Mined and Stockpiled

Prior to Sept. 1st . . .	4,177.82		161,095.90.
During Sept.	1,390.687	1.82	50,509.17 ✓
Total			214,710.96

Extraction - 75% Recovery	161,033.22
Previously Extracted	423,401.322
Total Lbs. Extracted to 10/1/41	584,434.542
Shipped to October 1, 1941	717,848.00

UNITED STATES VANADIUM CORPORATION

W. G. Haldane

Assistant General Superintendent

AF/ W. G. Haldane

F. F. Kett

(75)

UNITED STATES VANADIUM CORPORATION
CARBIDE AND CARBON BUILDING
30 EAST FORTY-SECOND STREET
NEW YORK

November 10, 1941

The Vanadium Corporation of America
420 Lexington Avenue
New York, N. Y.

Gentlemen:

Herewith please find statement covering Maggie "C" — Dry Valley production for October, 1941, and oblige

Yours very truly,

Blair Burwell
General Superintendent

AF/ Blair Burwell
USVC

Attach.

UNITED STATES VANADIUM CORPORATION

Uravan, Colorado

MINING & MILLING MAGGIE "C" — DRY VALLEY ORE

October - 1941

MAGGIE "C"

Date	Tons Hauled	Analysis V_2O_5	Lbs. V_2O_5
10/2	9.700	1.28	248.320

DRY VALLEY

Dry Tons Mined and Stockpiled in October, 1941	1480.763	1.9251	57010.850
Total			57259.170

Extraction - 75% Recovery	42944.378
Previously Extracted	584434.542
Total Lbs. Extracted to 11/1/41	627378.920
Shipped to November 1, 1941	717848.000

UNITED STATES VANADIUM CORPORATION

AF/ Blair Burwell
B

General Superintendent

UNITED STATES VANADIUM CORPORATION

JOINT OF UNION CARBIDE UCC AND CARBON CORPORATION

URAVAN, COLORADO

November 10, 1941

Vanadium Corporation of America
Naturita, Colorado

Gentlemen:

We are enclosing herewith Maggie "C" report covering October tonnage.

Yours very truly,

UNITED STATES VANADIUM CORPORATION

A.H. Coleman

Superintendent

A.H.Coleman.mc
Encl.

UNITED STATES VANADIUM CORPORATION

Uravan, Colorado

MINING & MILLING MAGGIE "C" - DRY VALLEY ORE

October - 1941

MAGGIE "C"

Date	Tons Hauled	Analysis V_2O_5	Lbs. V_2O_5
10/2	9.700	1.28	218.320

DRY VALLEY

Dry Tons Mined and Stockpiled in October, 1941	1480.763	1.9251	57010.850
Total			57259.170

Extraction - 75% Recovery	42944.378
Previously Extracted	584434.542
Total Lbs. Extracted to 11/1/41	627378.920
Shipped to November 1, 1941	717848.000

UNITED STATES VANADIUM CORPORATION

A.H. Coleman

Superintendent

UNITED STATES VANADIUM CORPORATION
CARBIDE AND CARBON BUILDING
30 EAST FORTY-SECOND STREET
NEW YORK

November 10, 1941

Vanadium Corporation of America
420 Lexington Avenue
New York, N. Y.

Re: Dry Valley Production

Gentlemen:

We are giving below a tabulation of the Dry Valley statement for October, 1941, covering royalties to the Molybdenum Corporation of America for ore removed during this month:

Dry Tons Mined and Stockpiled	% V_2O_5	Content V_2O_5	Value at 20¢/#V_2O_5	Cost of Transportation	Net Value at Stockpile	Royalty at 10% of net value
1480.763	1.92	56,861.30	11,372.26	1,702.84	9,669.42	966.94

Yours very truly,

/Blair Burwell
General Superintendent

AF/ Blair Burwell
USVC

Copy to RB FFK.

11/13/41 Copy to RB FFK 11/13/41 mcs

November 21, 1941

Mr. Blair Burwell, Gen. Supt.,
United States Vanadium Corporation,
30 East 42nd Street,
New York City

Dear Blair:

We have here the statement signed by Mr. Coleman for the ore mined from Dry Valley for October, together with your statement for the same production.

You both agree that the tonnage mined was 1480.763. He gives the % V_2O_5 content as 1.9251, which you give as 1.92. You show the V_2O_5 content as 56,861.30 pounds; he shows the V_2O_5 content as 57,010.850. Neither of these two figures is correct. The V_2O_5 content based on his analysis is 57,012.337.

Since we have to take your figures regarding tonnage and analyses for payments to the Molybdenum Corporation, we must put in the correct figure for the pounds contained V_2O_5, which of course for this month of October at least will not check with yours.

Will you please check your figures and send me a revised copy of your production sheet of November 10th for our records. I am enclosing an extra copy of this letter to you in case you might care to send it to Mr. Coleman.

Very truly yours,

Frederick F. Kott
General Manager, Vinadium Division

FFK:DR

CC RB

Plaintiffs' Exhibit No. 150--(Continued)

UNITED STATES VANADIUM CORPORATION
CARBIDE AND CARBON BUILDING
30 EAST FORTY-SECOND STREET
NEW YORK

December 3, 1941

Vanadium Corporation of America
420 Lexington Avenue
New York, N. Y.

Att: Mr. Frederick F. Kett,
General Manager, Mining Division

Gentlemen:

We have received your letter of November 28th concerning our statements covering ore mined from Dry Valley during October, 1941.

Upon checking with our Uravan office, we find an error was made in reporting the percentage of V_2O_5 content, which should have been shown as 1.9521. The correct figure on the V_2O_5 content is 57,010.850 lbs.

We are attaching a revised statement based on the above figures, and would ask that you substitute this for those which you have previously received from Uravan office and this office.

We wish to thank you for calling the matter to our attention, and offer our apology for any inconvenience caused you.

Yours very truly,

Blair Burwell
General Superintendent

AF
USVC

Attach.

Plaintiffs' Exhibit No. 150--(Continued)

UNITED STATES VANADIUM CORPORATION
CARBIDE AND CARBON BUILDING
30 EAST FORTY-SECOND STREET
NEW YORK

December 3, 1941

Vanadium Corporation of America
420 Lexington Avenue
New York, N. Y.

Re: Dry Valley Production

Gentlemen:

We are giving below a tabulation of the Dry Valley statement for October, 1941, covering royalties to the Molybdenum Corporation of America for ore removed during this month:

Dry Tons Mined and Stockpiled	% V_2O_5	Content V_2O_5	Value at 20¢/#V_2O_5	Cost of Transportation	Net Value at Stockpile	Royalty at 10% of net value
1480.763	1.9521	57,010.850	11,402.17	1,702.84	9,699.33	969.93

Yours very truly,

Blair Burwell
A.F.

General Superintendent

AF/ Blair Burwell
USVC

Plaintiffs' Exhibit No. 150--(Continued)

UNITED STATES VANADIUM CORPORATION
CARBIDE AND CARBON BUILDING
30 EAST FORTY-SECOND STREET
NEW YORK

(750)

December 9, 1941

Vanadium Corporation of America
420 Lexington Avenue
New York, N. Y.

Gentlemen:

Please find attached, statement covering Maggie "C" - Dry Valley production for November, 1941, and oblige

Yours very truly,

Assistant General Superintendent

AF/ W. G. Haldane
USVC

Attach.

UNITED STATES VANADIUM CORPORATION

Uravan, Colorado

MINING & MILLING MAGGIE "C" — DRY VALLEY ORE

November - 1941

MAGGIE "C"

NONE

DRY VALLEY

	Tons Hauled	Analysis V_2O_5	Lbs. V_2O_5
Dry Tons Mined and Stockpiled in November, 1941	1416.293	1.8301-	51,838.08

Extraction - 75% Recovery	38,878.56
Previously Extracted	627,378.92
Total Lbs. Extracted to 12/1/41	666,257.48
Shipped to December 1, 1941	717,848.00

UNITED STATES VANADIUM CORPORATION

Assistant General Superintendent

AF/ W. G. Haldane
B

12/9/41

Plaintiffs' Exhibit No. 150--(Continued)

K# 246
R.B.

749

UNITED STATES VANADIUM CORPORATION
CARBIDE AND CARBON BUILDING
30 EAST FORTY-SECOND STREET
NEW YORK

December 9, 1941

Vanadium Corporation of America
420 Lexington Avenue
New York, N. Y.

Re: Dry Valley Production

Gentlemen:

Statement covering production from Dry Valley, Utah properties for the month of November, 1941 is shown in the following:

Dry Tons Mined and Stockpiled	% V_2O_5	Content V_2O_5	Value at 20¢/#V_2O_5	Cost of Transportation	Net Value at Stockpile	Royalty at 10 of net value
1416.293	1.8301-	51,838.08	10,367.61	1,562.95	8,804.66	880.46

Yours very truly,

Assistant General Superintendent

AF/ W. G. Haldane
USVC

Plaintiffs' Exhibit No. 150--(Continued)

G.J. Ex 710

UNITED STATES VANADIUM CORPORATION
CARBIDE AND CARBON BUILDING
30 EAST FORTY-SECOND STREET
NEW YORK

January 9, 1942

Vanadium Corporation of America
420 Lexington Avenue
New York, N. Y.

Re: Dry Valley Production

Gentlemen:

Statement covering production from Dry Valley, Utah properties for the month of December, 1941 is shown in the following:

Dry Tons Mined and Stockoiled	% V_2O_5	Content V_2O_5	Value at 20¢/#V_2O_5	Cost of Transportation	Net Value at Stockpile	Royalty at 10% of net value
828.182	1.7690%	29,301.440	5,860.29	1,126.66	4,733.63	473.36

Yours very truly,

W. G. Haldane

Assistant General Superintendent

AF/ W. G. Haldane
USVC

Plaintiffs' Exhibit No. 150--(Continued)

UNITED STATES VANADIUM CORPORATION
CARBIDE AND CARBON BUILDING
30 EAST FORTY-SECOND STREET
NEW YORK

(742)

April 7, 1942

Vanadium Corporation of America
420 Lexington Avenue
New York, N. Y.

Gentlemen:

Please find attached the final statement covering the Maggie "C" - Dry Valley production.

This statement shows that the production of ore in Dry Valley and Maggie "C" has been completed, and the account has been closed and settled.

Yours very truly,

Blair Burwell

General Superintendent

AF/ Blair Burwell
USVC

Attach.

UNITED STATES VANADIUM CORPORATION

Uravan, Colorado

MINING & MILLING MAGGIE "C" — DRY VALLEY ORE

March, 1942

MAGGIE "C"

NONE

DRY VALLEY

NONE

Total Lbs. Extracted to 3/1/42, as per Report for February, 1942 . .	733,551.13
Less Correction of the total Lbs. Extracted, in accordance with agreement between Mr. Blair Burwell and Mr. Frederick Kett	15,703.13
Corrected Lbs. Extracted to 3/1/42	717,848.00
Shipped to March 1st, 1942	717,848.00
Balance	NONE

UNITED STATES VANADIUM CORPORATION

Blair Burwell

General Superintendent

Plaintiffs' Exhibit No. 190--(Continued)

UNITED STATES VANADIUM CORPORATION
CARBIDE AND CARBON BUILDING
30 EAST FORTY-SECOND STREET
NEW YORK

January 9, 1942

Vanadium Corporation of America
420 Lexington Avenue
New York, N. Y.

Gentlemen:

Please find attached, statement covering Maggie "C" - Dry Valley production for December, 1941, and oblige

Yours very truly,

Assistant General Superintendent

AP/ W. G. Haldane
USVC

Attach.

UNITED STATES VANADIUM CORPORATION

Uravan, Colorado

MINING & MILLING MAGGIE "C" — DRY VALLEY ORE

December, 1941

MAGGIE "C"

NONE

DRY VALLEY

	Tons Hauled	Analysis V_2O_5	Lbs. V_2O_5
Dry Tons Mined and Stock-piled in December, 1941	828.182	1.7690%	29,301.440
Extraction - 75% Recovery			21,976.080
Previously Extracted			666,257.480
Total Lbs. Extracted to 1/1/42			688,233.560
Shipped to January 1, 1942			717,848.000

UNITED STATES VANADIUM CORPORATION

Assistant General Superintendent

AP/ W. G. Haldane

Plaintiffs' Exhibit No. 150--(Continued,

Klein & Saturn to FF

UNITED STATES VANADIUM CORPORATION

CARBIDE AND CARBON BUILDING

30 EAST FORTY-SECOND STREET

NEW YORK

(COPY)

(746)

February 18, 1942

Vanadium Corporation of America
420 Lexington Avenue
New York, N. Y.

Gentlemen:

Please find attached, statement covering Maggie "C" - Dry Valley production for January, 1942, and oblige

Yours very truly,

Assistant General Superintendent

AF/ W. G. Haldane
USVC

Attach.

Plaintiffs' Exhibit No. 150--(Continued)

(COPY)

UNITED STATES VANADIUM CORPORATION

Uravan, Colorado

MINING & MILLING MAGGIE "C" — DRY VALLEY ORE

January, 1942

MAGGIE "C"

NONE

DRY VALLEY

	Tons Hauled	Analysis V_2O_5	Lbs. V_2O_5
Dry Tons Mined and Stock-piled in January, 1942	879.083	1.7949	31,557.50
Extraction - 75% Recovery			23,668.12
Previously Extracted			688,233.56
Total Lbs. Extracted to 2/1/42			711,901.68
Shipped to February 1, 1942			717,848.00

UNITED STATES VANADIUM CORPORATION

Assistant General Superintendent

AF/ W. G. Haldane
B

2/18/42

Plaintiffs' Exhibit No. 150--(Continued)

UNITED STATES VANADIUM CORPORATION
CARBIDE AND CARBON BUILDING
30 EAST FORTY-SECOND STREET
NEW YORK

February 18, 1942

Vanadium Corporation of America
420 Lexington Avenue
New York, N. Y.

Re: Dry Valley Production

Gentlemen:

Statement covering production from Dry Valley, Utah properties for the month of January, 1942 is shown in the following:

Dry Tons Mined and Stockpiled	% V_2O_5	Content V_2O_5	Value at 20¢/#V_2O_5	Cost of Transportation	Net Value at Stockpile	Royalty at 10% of net value
879.083	1.7949	31,557.50	6,311.50	621.56	5,689.94	568.99

Yours very truly,

Assistant General Superintendent

AF/ W. C. Haldane
USVC

Plaintiffs' Exhibit No. 150--(Continued)

UNITED STATES VANADIUM CORPORATION
CARBIDE AND CARBON BUILDING
30 EAST FORTY-SECOND STREET
NEW YORK

(-144)

March 11, 1942

Vanadium Corporation of America
420 Lexington Avenue
New York, N. Y.

Gentlemen:

Please find attached, statement covering Maggie "C" - Dry Valley production for February, 1942, and oblige

Yours very truly,

W. Haldane

Assistant General Superintendent

AF/ W. C. Haldane
USVC

Attach.

UNITED STATES VANADIUM CORPORATION

Uravan, Colorado

MINING & MILLING MAGGIE "C" — DRY VALLEY ORE

February, 1942

MAGGIE "C"

NONE

DRY VALLEY

	Tons Hauled	Analysis V_2O_5	Lbs. V_2O_5
Dry Tons Mined and Stockpiled in February, 1942	666.107	2.0813	27,726.93
To correct error in July, 1941 report			1,139.00
			28,865.93
Extraction - 75% Recovery			21,649.44
Previously Extracted			711,901.69
Total Lbs. Extracted to 3/1/42			733,551.13
Shipped to March 1, 1942			717,846.00

UNITED STATES VANADIUM CORPORATION

W. Haldane

Plaintiffs' Exhibit No. 150--(Continued)

UNITED STATES VANADIUM CORPORATION
CARBIDE AND CARBON BUILDING
30 EAST FORTY-SECOND STREET
NEW YORK

745

March 11, 1942

Vanadium Corporation of America
420 Lexington Avenue
New York, N. Y.

Re: Dry Valley Production

Gentlemen:

Statement covering production from Dry Valley, Utah properties for the month of February, 1942 is shown in the following:

Dry Tons Mined and Stockpiled	% V_2O_5	Content V_2O_5	Value at 20¢/#V_2O_5	Cost of Transportation	Net Value at Stockpile	Royalty at 10% of net value
666.107	2.0813	27,726.93	5,773.18	623.90	5,149.28	514.93
		1,139.00*				
		28,865.93				

*To correct error in July, 1941 report.

Yours very truly,

W C Haldane

Assistant General Superintendent

AF/ W. C. Haldane
USVC

PLAINTIFFS' EXHIBIT No. 157

AGREEMENT

This Agreement, made and entered into this 12th day of June 1942, by and between Vanadium Corporation of America, a Delaware Corporation, No. 420 Lexington Avenue, New York, New York, party of the first part, hereinafter referred to as Vanadium, and Blanding Mines Company, a Utah Corporation, P. O. Box 188, Cortez, Colorado, party of the second part, hereinafter referred to as Blanding,

Witnesseth:—That for and in consideration of the premises, conditions and covenants hereinafter mentioned to be kept and performed, Vanadium does hereby lease, demise, and grant to Blanding for a period of fifteen (15) years from the date of the execution of this agreement, for the purpose of mining and milling vanadium and uranium ores, certain claims and parts of claims, situated in the County of San Juan, State of Utah, and lying south of Spring Creek and/or east of Cottonwood Creek, the same constituting all claims or parts thereof in said restricted area owned by Vanadium, said claims being described as follows:—

Name of Claim	Date of Original Location	Recorded San Juan County, Utah Book	Page	Date of Amended Location
Badger	March 25, 1931	R	537	Dec. 8, 1937
Birthday	March 25, 1931	R	537	Dec. 8, 1937
Box Canyon	March 20, 1931	R	507	Dec. 8, 1937
Cedar Bird	March 20, 1931	R	506	Dec. 8, 1937

Plaintiffs' Exhibit No. 157—(Continued)

Name of Claim	Date of Original Location	Recorded San Juan County, Utah Book	Page	Date of Amended Location
Cliff House	March 20, 1931	R	506	Dec. 8, 1937
East Bank	March 25, 1931	R-1	56	
Ledge	March 20, 1931	R	507	Dec. 8, 1937
Lost	April 23, 1931	R	545	Dec. 8, 1937
Point	March 20, 1931	R	505	Dec. 8, 1937
Sand	March 23, 1931	R	541	Dec. 8, 1937
South	March 24, 1931	R	535	Dec. 8, 1937
Spring Creek	March 20, 1931	R	508	Dec. 8, 1937
Found		R-1	276	
Confusion No. 1		R-1	287	
Confusion No. 2		R-1	287	
Cottonwood No. 1				
Cottonwood No. 2		R-1	263	
Cottonwood No. 3		R-1	263	
Wedge		R-1	276	

which claims, together with any additional claims owned by Vanadium which Blanding may at any time be entitled to mine as in this agreement provided, are hereinafter called the leased premises.

The Parties Hereto Covenant and Agree as Follows:

1. As payment therefor, Blanding agrees to pay the following royalties: on all ores mined from the claims covered by this agreement and milled by Blanding, Blanding will pay to Vanadium a minimum royalty of three percent (3%) of the market price per pound, f.o.b. mill on the leased premises, on all pounds of vanadic oxide (V_2O_5) contained in the ore mined on the leased premises and there milled, such market price per pound of such con-

Plaintiffs' Exhibit No. 157—(Continued)

tained vanadic oxide (V_2O_5) to be the selling price per pound of vanadic oxide (V_2O_5) contained in the finished mill product, provided, however, that the aggregate such royalty for each calendar year shall in no event be less than one third (1/3) of the total net profit of Blanding for such calendar year computed as set forth in Appendix A hereto attached and hereby made a part hereof, and the amount, if any, by which such one third (1/3) of such total net profit for any calendar year shall exceed the aforesaid minimum royalty for said calendar year shall be paid by Blanding to Vanadium by not later than April 1 of the next succeeding calendar year. On ore mined off of the above claims but milled by Blanding in any mill on the leased premises, Blanding will pay to Vanadium two cents ($0.02) per pound of contained vanadic oxide (V_2O_5) in such ore.

2. All ore mined by Blanding on the leased premises and considered by it to be of too low grade to mill will be separately stock piled by Blanding on the leased premises and at any time at the option of Vanadium, shall be sold to it at the market price current at the time for such ore, less, however, in lieu of royalty payable by Blanding to Vanadium in respect to such ore, an amount equal to five cents ($0.05) per pound of contained vanadic oxide (V_2O_5) in such ore. If Blanding desires to sell this ore to a third party and Vanadium does not desire to purchase it on the above basis, then

Plaintiffs' Exhibit No. 157—(Continued)

Blanding may sell such ore to a third party and pay Vanadium five cents ($0.05) per pound of contained vanadic oxide (V_2O_5) in such ore so sold. Except as Blanding shall mill, or separately and normally stock-pile in order to mill, ore mined on the leased premises, whatever the grade of such ore, Vanadium shall have a like option to purchase such ore and to the extent that Vanadium shall elect not to purchase the same, a like right to royalty upon the sale thereof to a third party.

3. Royalties payable under paragraph 1 hereof for milled ore shall, except as otherwise in said paragraph 1 provided, be due and payable on all ore milled in any calendar month not later than the twentieth (20th) day of the next succeeding calendar month and royalties payable under paragraph 2 hereof for ore sold shall be due and payable within twenty (20) days after sale and delivery of such ore.

4. Royalties paid in advance to Frank A. Garbutt by Blanding, amounting to Twenty-five Hundred Dollars ($2500.00) and not yet earned by said Frank A. Garbutt shall be credited by Vanadium to the first royalty payments to become due by Blanding to Vanadium, until said amount is satisfied.

5. Should Blanding produce ore from the claims covered by this agreement containing a sufficient uranium (U_3O_8) content to make it more profitable to sell such ore to a third party than to mill the

Plaintiffs' Exhibit No. 157—(Continued)

same, such ore shall be sold to a third party at the highest price then obtainable and the net proceeds of such sale, after deducting all costs of mining, handling, shipping, and selling, and all other costs properly chargeable to the sale of such ore, shall be divided seventy-five percent (75%) to Vanadium and twenty-five percent (25%) to Blanding.

6. Any claims located or acquired by Vanadium south of Spring Creek or east of Cottonwood Creek and within a distance of one mile of the claims covered by this agreement, may at the option of Blanding be operated and mined by Blanding upon payment of the royalties stated in paragraphs 1 and 2 hereof. Any claims located or acquired by Blanding south of Spring Creek or east of Cottonwood Creek and within a distance of one mile of the claims covered by this agreement may, at the option of Vanadium, be purchased by Vanadium at the cost of acquisition or location including exploration, but the maximum price payable by Vanadium therefor shall be three hundred dollars ($300.00) on any one claim, and each such claim purchased by Vanadium may be operated by Blanding on the same royalty basis as the claims covered by this agreement. As to each such claim such option to purchase may be exercised by Vanadium not later than ninety (90) days after notice in writing of location or acquisition by Blanding shall have been given to Vanadium, together with a statement of acquisition price and location and development

Plaintiffs' Exhibit No. 157—(Continued)

costs, if any. Copies of drill logs, sampling results and all technical data in connection with such development work by Blanding, shall be furnished to Vanadium with the statement next above mentioned. Blanding will not, without the consent of Vanadium, acquire or lease any claims west of Cottonwood Creek and north of Spring Creek within one mile from the claims owned by Vanadium in that area at the date hereof, or purchase ore mined by third parties from any claims in that area.

7. In the event Blanding shall desire to cease operations on the leased premises, it may, by giving ninety (90) days written notice to Vanadium, discontinue work hereunder and terminate this agreement and surrender possession of the leased premises, in which case all liabilities and obligations of Blanding shall terminate except liabilities for royalties accrued and not yet paid, and thereupon Blanding shall cease operations but shall have a period of one (1) year from and after such surrender of possession within which to remove buildings, machinery, equipment and supplies and tailings. Anything not so removed by Blanding shall become the property of Vanadium.

8. Blanding agrees to carry workmen's compensation upon all workers employed by it upon the leased premises, and in all respects to comply with the applicable mining laws and regulations of the United States and of the State of Utah.

Plaintiffs' Exhibit No. 157—(Continued)

9. Blanding agrees to save Vanadium harmless from claims for material and labor of other parties, and agrees at all times to keep notices posted that the leased premises are being operated under a lease agreement and that Vanadium is not in any manner responsible for any debts for labor, materials, or other debts contracted by Blanding.

10. Blanding agrees to save Vanadium harmless against any operations or actions that Blanding may make or perform on the leased premises and to indemnify Vanadium against any and all loss, damage, claim, liability and expense, that may at any time be incurred, suffered or claimed, by or against Vanadium, by reason of injury, loss or damage to persons or property upon the leased premises or arising out of, or referable to, the leased premises, or the operation thereof, provided such injury, loss or damage shall have occurred during the life of this agreement; and without limiting the generality of the foregoing, Blanding shall carry and maintain in responsible insurance companies such policy or policies of insurance as may be required by the laws of the State of Utah to protect Vanadium from any loss or responsibilities whatsoever to third parties by reason of the operations of Blanding in or upon the leased premises.

11. Blanding agrees that it will apply such work, labor and expenditures as shall be necessary as assessment work upon all claims which it has the

Plaintiffs' Exhibit No. 157—(Continued)

right to operate hereunder, and will, without cost or expense to Vanadium, file and post all notices in regard thereto. When requested by Vanadium so to do, Blanding will furnish to Vanadium a statement showing all expenditures on the claims covered by this agreement, for any part of the assessment year (July 1 to July 1) which could properly be applied to cover assessment work on the claims now owned by Vanadium west of Cottonwood Creek and north of Spring Creek.

12. Blanding agrees to pay all taxes on the leased premises before the same become delinquent; taxes as used herein meaning occupational tax and real and personal property tax assessed by the United States or any political subdivision thereof or by the State of Utah or any department or political subdivision thereof.

13. Blanding agrees that Vanadium shall have the right and privilege, by authorized agent or representative, to enter upon the leased premises at any and all reasonable times in order to inspect the leased premises and to examine the mine and mill records of Blanding.

14. Blanding hereby grants to Vanadium reasonable right of ingress and egress over the leased premises and Vanadium hereby grants to Blanding, reasonable right of ingress and egress over its property in the same locality.

15. This agreement cancels that certain lease agreement dated on or about April 1, 1940 between

Plaintiffs' Exhibit No. 157—(Continued)

Frank A. Garbutt and H. L. Bigler, Dan Milenski and Howard Kimmerle, recorded in Book T3 of Miscellaneous Records at Page 361 of the Books and Records of San Juan County, State of Utah, and which lease was assigned to Blanding, as of the date of this agreement, except as to liabilities under said lease then accrued.

16. Insofar as Blanding and Vanadium have any right to the use of water from Cottonwood Creek and Spring Creek, Blanding shall have the first and prior right to the use of water from said creeks for mining, milling and domestic purposes, up to but not exceeding for such milling, the requirements of a twenty (20) ton mill; and as to any water in said creeks not needed by Blanding for such mining, milling or domestic purposes, Vanadium shall have the first and prior right for mining, milling and domestic purposes; provided, however, that the expense incurred in acquiring such water shall be paid by the user, thereof.

17. In the event Blanding shall fail to perform any of the covenants herein agreed by it to be made and performed, no action for cancellation or termination of this agreement may be taken by Vanadium unless Vanadium shall have given Blanding ninety (90) days notice in writing of its defaults and then this agreement may be cancelled by Vanadium only if Blanding fails to remedy such defaults within said ninety (90) days period, provided, however, that such period of ninety (90)

Plaintiffs' Exhibit No. 157—(Continued)

days shall be extended by ninety (90) days if weather conditions so require; all notices mentioned herein and elsewhere in this agreement must be in writing and sent by registered mail to addresses as herein given.

18. This agreement and all rights under this agreement shall be construed in accordance with and under the terms of the laws of the State of Utah as the same now are or may hereafter be amended, and all disputes shall be settled in accordance with the laws of the State of Utah. The laws of the State of Utah permitting, it is agreed that in the event any dispute shall arise under this agreement, the same shall be settled by a board of arbitration consisting of three arbitrators, one of whom shall be selected by each party, and the third selected by the two first selected, and the decision of two of said arbitrators shall be binding and conclusive upon the parties hereto.

19. In the event that Blanding shall operate its mill on the leased premises for a total period of less than 180 days in any two consecutive calendar years, Vanadium, at its option, may enter upon the leased premises and mine and remove ore therefrom up to a total of six hundred (600) tons a month without any payment whatsoever to Bland-

Plaintiffs' Exhibit No. 157—(Continued)

ing therefor except such part of the development costs of Blanding, if any, as may properly be allowable to the ore so removed, and each such right of Vanadium shall continue until Blanding shall resume commercial operation of its mill.

20. Blanding shall not assign any part of its rights under this agreement to a third party, without written consent by Vanadium. Blanding shall not sublease any part of the leased premises to a third party, except for the purpose of mining ore for milling by Blanding on the leased premises, without written consent by Vanadium. Except as herein otherwise provided, this agreement shall extend to and be obligatory upon the successors and assigns of the respective parties hereto.

21. In the event that at any time Blanding shall cease to be controlled and managed by Fred A. Brinker, H. L. Bigler and Dan Milenski, or by one or more of them, or at least by one of them and the heirs of the others, then Vanadium shall have the right forthwith to cancel this agreement and thereby to terminate all rights of Blanding under the same, except only the same right to remove its property from the leased premises which is granted to Blanding in paragraph 7 of this agreement.

22. This agreement can be altered and changed only by instrument in writing subscribed by proper officers of the respective parties.

Plaintiffs' Exhibit No. 157—(Continued)

In Witness Whereof the parties hereto have executed this agreement as of the day and year first above written.

VANADIUM CORPORATION OF AMERICA,

/s/ By E. D. BRANSOME,
President.

Attest:

/s/ P. J. GIBBONS,
Secretary.

Address: 420 Lexington Ave., New York City.

BLANDING MINES COMPANY,

/s/ By H. L. BIGLER,
President.

Attest:

/s/ DAN MILENSKI,
Secretary.

Address: Box 188, Cortez, Colorado.

Appendix A

Net Profit of Blanding Mines Company from its operations under lease agreement with Vanadium Corporation of America, dated June .... 1942, Paragraph One shall be gross proceeds less costs of operation.

Costs of operation shall be calculated in accordance with standard mining, milling and processing practices and accounting, including labor, power and fuel, transportation, handling, supplies, depre-

Plaintiffs' Exhibit No. 157—(Continued)

ciation, and other usual and customary costs. Also taxes (including income and excess profit taxes).

Royalty payments made by Blanding to Vanadium Corporation of America in accordance with Paragraph One covering ore mined from the leased premises and milled thereon by Blanding shall be excluded as items of cost. All other royalty payments, however, whether made in accordance with Paragraphs One or Two, shall be included as items of cost.

Blanding is not to be required, for the purposes of cost calculations under such lease, to allocate any portion of its operating costs to low grade ore stored in stockpile.

Proceeds from any sales of Uranium Ore, or costs covering same, shall not be included in calculation of net profit.

PLAINTIFFS' EXHIBIT No. 158

Mr. Daniel Milenski March 17, 1944
Cortez, Colorado

Dear Mr. Milenski:

Thank you for your wire, reading as follows:

"Retel unable to agree in writing with Sitton on deal and since we cannot we insist all officers of proposed organization be either Utah or Colorado residents as well as independent producers."

I must admit that I don't quite understand why you insist that all officers be either Utah or Colo-

Plaintiffs' Exhibit No. 158—(Continued)

rado residents, as well as independent producers.

For that matter, Mr. Sitton is eligible in both instances, whether you complete your private deal with him or not. Of course, I hope that you will be successful in your agreement with Mr. Sitton as well as with regards to the association.

Mr. Pleasants had a trial in court which delayed all his other work, but he promises to let us have the contract today or tomorrow. As soon as we receive it, it will be forwarded to you.

Needless to say, both matters, the Sitton deal and the formation of the association, are considered of equal importance by me.

Please keep me informed as to developments.

Very truly yours,

CONTINENTAL ORE COMPANY,
HENRY J. LEIR.

hjl/se

Mr. Daniel Milenski March 17, 1944

Contract.

Mr. Pleasant's messenger just delivered the contract. I have looked through it superficially, and send it along to you in order to avoid further delay.

According to Mr. Pleasant's advice over the phone to me, he inserted paragraph 10 as a protection for Continental which, in his opinion, is necessary if we now tie up with you completely.

Await your reaction.

CONTINENTAL ORE COMPANY.

PLAINTIFFS' EXHIBIT No. 160

[Penciled date: May 7, 1942.]

increase its contribution for the year 1942 to $1,250.00. The President recommended that the Corporation contribute the sum of $1,250.00 for this year. After discussion, the Committee, upon the recommendation of the President, approved of a subscription in the amount of $1,250.00 to the National Industrial Information Committee for the year 1942.

The Secretary also presented to the Committee a letter from Mr. Robert C. Stanley, President of the International Nickel Company, *Inc., requesting* a contribution for the War Production Fund to Conserve Man Power, which is sponsored by the National Safety Council, Inc. The President recommended that the Committee approve of a contribution in the amount of $1,500.00. On motion regularly moved, seconded and unanimously carried, the Committee approved a contribution to the War Production Fund to Conserve Man Power, in the amount of $1,500.00 as recommended by the President.

The President reported the Corporation had entered into an agreement to acquire vanadium ore property in Blanding, Utah. He stated such agreement contemplated royalty payments of five cents ($0.05) per lb. of contained V_2O_5 in ore produced, with an advance royalty payment of $20,000.00 at time agreement was consummated. He stated it was

Plaintiffs' Exhibit No. 160—(Continued)

planned to treat the ore mined from this property in the plant now under construction at Monticello, Utah.

There being no further business, after a general discussion of the affairs of the Corporation, on motion regularly moved, seconded and carried, the meeting thereupon adjourned.

P. J. GIBBONS,
Secretary.

PLAINTIFFS' EXHIBIT No. 162

Electro Metallurgical Sales Corporation
Export Department
30 East Forty-Second Street
New York, N. Y., U.S.A.

November 3rd, 1939

Vanadium Corporation of America
420 Lexington Avenue
New York, N. Y.

Attention: Mr. P. J. Gibbons,
Secretary and Treasurer

Gentlemen:

As per our telephone conversation of today, we now have available the second consignment of Fused Vanadium Oxide for France.

Plaintiffs' Exhibit No. 162—(Continued)

The gross weight of the consignment is 53,830 pounds, or 51,585 pounds of Fused Vanadium Oxide net, which is equivalent to 44,999.54 pounds of Vanadium Pentoxide. This, at a value of $1.30 per pound of Contained V_2O_5 equals $58,499.40. Adding to this the marine freight, consular fees, consular blanks, and marine insurance charges, we arrive at a c.i.f. LeHavre value of $59,463.20.

As we understand the freight rate is to be increased on November 13th we suggest that you urge them to cable their credits promptly, enabling booking of the shipment prior to that date; otherwise, their credits must be increased.

Very truly yours,

ELECTRO METALLURGICAL
SALES CORPORATION,
J. F. WIDMAN,
Export Department.

JFW:LMH

[Pen Note:] Gross V.C.A., 52,788#; Alloy, 49,-680#; Cont'd., 45,000 V_2O_5; Value $58,501; Frt. $686; Ins. $300 (Est.); Total $59,487. H. B. 11/9/39.

DEFENDANT U'S EXHIBIT "B"

Metals Reserve Company
Washington, D. C.

Feb. 25, 1942

U. S. Vanadium Corporation
30 East 42d Street
New York, New York

Re: Vanadium Agency Agreement

Gentlemen:

In accordance with the recommendation of the War Production Board, we wish to proceed with the program for increasing the supply of vanadium urgently needed for war requirements, by producing vanadium from the non-commercial "lead vanadate" properties of the southwest with which you are familiar.

Accordingly, we hereby appoint you our Agent, subject to cancellation in our sole discretion upon one month's notice, to carry out this program on the terms set forth below:

1. Investigation. You will immediately submit to us a statement setting forth the steps you propose to take to investigate the known lead vanadate prospects of the southwest from which vanadium may be produced, and the estimated cost of such investigation. Upon our approval of such statement, you will proceed with such investigation to determine the most desirable properties to develop, and submit your findings and recommendations to us from time to time.

Defendant U's Exhibit "B"—(Continued)

2. Development and Production. You will purchase concentrates from third parties required for the program, in such quantities and on such terms recommended by you and approved by us. You will recommend, for our approval, plans and designs for the development, equipment and operation of a particular property in its entirety or covering certain stages thereof from time to time; such recommendation to specify as far as practicable the equipment and facilities, the leases, the contracts and the purchases involved, and estimated costs thereof. Upon our written approval of the development of a particular property, you will take all the necessary steps, as recommended, to develop and equip the property, mine and mill the ore, have the concentrates smelted and refined, and to act as our selling and shipping Agent in disposing of the vanadium and other materials purchased or produced. In carrying out this work, you may enter into such contracts and leases, and purchase such property equipment and supplies as you deem advisable in our name, as our Agent, provided you obtain our prior approval for all leases covering properties to be developed and for particular contracts or purchases involving a dollar amount exceeding the amount we specify from time to time for this purpose.

3. Procedure. All property, equipment and supplies will be purchased and all materials produced will be held in our name by you, as our Agent. Each

Defendant U's Exhibit "B"—(Continued)

item of major equipment will be marked to indicate our ownership thereof and will be subject to removal from the real estate. Documents of title and ownership will be held by you in safe keeping for us and copies thereof filed with us. We are exempt from all taxation except local taxes on real estate owned by us. Accordingly, you will advise us of the imposition of any taxes. You will also carry such insurance on the properties and operations as we specify. Your representatives and employees will not be employees of this Company for any purpose. You will use your best efforts to perform all phases of the undertaking and to maintain costs at a minimum, and will report to us periodically upon our request the results of development and operations. You will use reasonable care in the use and custody of property and materials with appropriate inventory and ownership records. You will comply with all applicable Federal, State and municipal laws and regulations. We shall have the right at all times to send our representatives to examine the properties and operations and your books and payroll and inventory and other records, which shall be maintained entirely separate from your other operations.

4. Costs and Reimbursement. We have limited our allocation for all costs covered by this letter to $300,000 until the success of the program has been demonstrated by actual operations, and in making your recommendations this should be taken into

Defendant U's Exhibit "B"—(Continued)

consideration. We will pay or reimburse you from time to time for all expenses paid in connection with the investigation and reports provided for in paragraph numbered 1 above, up to a maximum of $30,000, upon receipt of your requisition therefor itemizing the expenditures and certifying as to the necessity and reasonableness thereof and that payment has been made therefor, and accompanied by receipted bills or evidence of payment. We agree to pay or reimburse you for all expenditures in acquiring, leasing, developing, equipping and operating the properties and in having vanadium and the other recoverable materials produced, transported and sold. For this purpose you will submit for our approval a budget, estimating the expenditures to be made in each three-month period, and we will establish a revolving fund in your favor for the payment of such expenses in a national bank designated by us. The revolving fund will be replenished from time to time upon receipt of your requisition therefor, itemizing prior expenditures and certifying as to the necessity and reasonableness thereof and that payment has been made therefor, and accompanied by receipted bills or evidence of payment. You will maintain a complete record of all expenditures and account to us therefor quarterly, or upon our request, by summarizing the payments covered by requisitions theretofore submitted together with transcript of the monthly bank statements and cancelled checks to be returned to you after audit, or, in lieu of accounting to us as afore-

Defendant U's Exhibit "B"—(Continued)

said, we may, at our option, audit your books and records at your offices. In addition to approving the aforesaid budget, we retain the right to require our prior approval for, or to pay directly, any particular expenditures or types of expenditures of which we advise you from time to time. It is further understood that the construction of any particular mill or plant, the cost of which exceeds $100,000, will be handled through Defense Plant Corporation, an RFC subsidiary.

5. Term and Compensation. For acting as our Agent hereunder, we will pay you a fixed fee of $1,000 per month, fractions pro rata, commencing with the day on which we authorize you to proceed with the investigation provided for in paragraph numbered 1 above. In consideration of this fee and our appointing you our Agent, you agree to act as our Agent hereunder for a period of four years from the date hereof or until the operations covered by this letter are fully liquidated, whichever date is the earlier; provided, however, that you shall have the right to terminate your employment as Agent hereunder on three months' written notice.

6. Indemnity. We agree to protect, indemnify and save you harmless from and against all claims and demands made against you and all judgments, loss or damages incurred by you in the performance of this agency within the authority granted, which are not the result of your negligence or intentional misconduct.

Defendant U's Exhibit "B"—(Continued)

If the foregoing is acceptable to you, please sign and return the enclosed duplicate original of this letter, to constitute the agreement between us as of the date hereof.

Very truly yours,

METALS RESERVE COMPANY,
/s/ By G. TEMPLE BRIDGMAN,
Executive Vice President.

Accepted and Agreed to:

U. S. VANADIUM CORPORATION,
/s/ By J. R. VAN FLEET,
Vice President.

DEFENDANT U'S EXHIBIT "C"

Metals Reserve Company
Washington, D. C.

April 9, 1942

United States Vanadium Corporation
30 East 42d Street
New York, New York

Re: Agency Agreement—Sandstone Vanadium—Durango Project

Gentlemen:

In accordance with the recommendation of the War Production Board, we wish to proceed with the program for increasing the supply of vanadium

Defendant U's Exhibit "C"—(Continued)

urgently needed for war requirements, by producing vanadium from the non-commercial "sandstone ore" properties of the southwest with which you are familiar.

In your letter of March 18, 1942, you inform us of several possible locations for vanadium reduction plants in the southwest. With the exception of a proposed plant at Durango, Colorado, it is our understanding that each plant would cost in excess of $100,000, and would, therefore, be handled as a Defense Plant Corporation project if and when approved.

As the Durango plant will not cost in excess of $100,000, we are writing this letter to authorize you to proceed on terms similar to the Vanadium Agency Agreement of February 25, 1942, covering the lead-vanadate properties. The Durango plant and any other plants approved by and constructed for Defense Plant Corporation, will be operated by you at the expense and under the direction of this Company, under a single operating agreement to be entered into hereafter between your Company and this Company.

To enable you to proceed immediately with the vanadium reduction plant at Durango, Colorado, we hereby appoint you our agent, subject to cancellation by us upon three months' notice and subject to cancellation by you upon three months' notice, on the terms set forth below:

1. Acquisition and Rehabilitation of Plant. You

Defendant U's Exhibit "C"—(Continued)

will, as soon as possible, purchase or lease, in our name, the plant site, acquire and rehabilitate the necessary buildings, equipment and facilities for a reduction plant with a capacity of 100 tons of ore per day; it being contemplated that the plant will be completed within three months from the date hereof. As to the site of the plant, whether fee or leasehold, your attorneys will obtain title opinion satisfactory to us. If the site is obtained by leasehold, the lease will be subject to our approval and will provide that the lessee shall have the right to remove all buildings, equipment and facilities at any time.

You will recommend, for our approval, plans and designs for the rehabilitation and equipment of the plant; such recommendation to specify as far as practicable the equipment and facilities, the contracts and the purchases involved, and the estimated cost thereof. Upon our written approval of such plans and designs, you will take all the necessary steps, as recommended, to complete the plant for operations as soon as possible. In carrying out this work you may enter into such contracts and purchase such property, equipment and supplies as you deem advisable, in our name, as our Agent, provided you obtain our prior approval with respect to particular contracts or purchases involving a dollar amount exceeding the amount we specify from time to time for this purpose.

2. Procedure. All property, equipment and sup-

Defendant U's Exhibit "C"—(Continued)

plies will be purchased, and all materials produced will be held in our name by you, as our Agent. Each item of major equipment will be marked to indicate our ownership thereof and will be subject to removal from the real estate. Documents of title and ownership will be held by you in safe keeping for us, and copies thereof filed with us. We are exempt from all taxation except local taxes on real estate owned by us. Accordingly, you will advise us of the imposition of any taxes. You will also carry such insurance on the properties as we approve. Your representatives and employees will not be employees of this Company for any purpose. You will use your best efforts to perform all phases of the undertaking and to maintain costs at a minimum, and will report to us periodically upon request as to the status of the project. You will use reasonable care in the use and custody of property and materials with appropriate records. You will comply with all applicable Federal, State and municipal laws and regulations. We shall have the right at all times to send our representatives to examine the properties and work and your books and payroll and other records at the plant, which shall be maintained entirely separate from your other operations.

3. Costs and Reimbursement. We have limited our allocation hereunder for all costs for the Durango plant, prior to operations, to $100,000. Subject to this limitation, we agree to pay or reim-

Defendant U's Exhibit "C"—(Continued)

burse you for all expenditures in acquiring, leasing, developing and equipping the above property and plant at Durango, Colorado. For this purpose you will submit, for our approval, a budget from time to time, estimating the expenditures to be made, and we will establish a revolving fund in your favor for the payment of such expenses in a national bank designated by us. The revolving fund will be replenished from time to time upon receipt of your requisition therefor, itemizing prior expenditures and certifying as to the necessity and reasonableness thereof and that payment has been made therefor, and accompanied by receipted bills or evidence of payment. You will maintain a complete record of all expenditures and account to us therefor quarterly, or upon our request, by summarizing the payments covered by requisitions theretofore submitted together with transcript of the monthly bank statement and cancelled checks to be returned to you after audit, or, in lieu of accounting to us as aforesaid, we may, at our option, audit your books and records at the plant pertaining to this operation. In addition to approving the aforesaid budget, we retain the right to require our prior approval for, or to pay directly, any particular expenditure or types of expenditures of which we advise you from time to time.

4. Operation. You agree to operate the aforesaid plant at Durango under an operating agreement to be entered into hereafter.

Defendant U's Exhibit "C"—(Continued)

5. Indemnity. We agree to protect, indemnify and save you harmless from and against all claims and demands made against you and all judgments, loss or damages incurred by you in the performance of this agency within the authority granted, which are not the result of your negligence or intentional misconduct.

6. Congressional Clause. No Member of or Delegate to the Congress of the United States shall be admitted to any share or part of this Contract, or to any benefit arising therefrom, but this provision shall not be construed to extend to this contract if made with a Corporation for its general benefit.

If the foregoing is acceptable to you, please sign and return the enclosed duplicate original of this letter, to constitute the agreement between us as of the date hereof.

Very truly yours,

METALS RESERVE COMPANY,
/s/ By G. TEMPLE BRIDGMAN,
Executive Vice President.

Accepted and Agreed to:

UNITED STATES VANADIUM CORPORATION,
/s/ By J. R. VAN FLEET,
Vice-President.

DEFENDANT U'S EXHIBIT "D"

Vanadium Agency Agreement

This Agreement made and entered into as of the 9th day of May, 1942, by and between Metals Reserve Company, a corporation duly created by Reconstruction Finance Corporation pursuant to section 5d of the Reconstruction Finance Corporation Act, as amended, with its principal office at Washington, D. C. (hereinafter called "Metals"), and United States Vanadium Corporation, a corporation created under the laws of the State of Delaware, having an office at Number 30 East 42d Street, New York, New York (hereinafter called "Vanadium"),

Witnesseth:

That Whereas, the increased domestic production of vanadium and its ore concentrates and the expansion of facilities within the United States for such production are necessary to the national defense and to successful prosecution of the war effort of the United States; and

Whereas, in accordance with the recommendation of the War Production Board, an agreement dated April 9, 1942, has been entered into between Metals and Vanadium for the construction of such facilities in the vicinity of Durango, Colorado, to cost not in excess of One Hundred Thousand Dollars ($100,000) and to have a capacity for the treatment of approximately one hundred (100) tons of vanadium ores per day in the production of vanadium

Defendant U's Exhibit "D"—(Continued)

ore concentrates (said facilities being hereinafter called the "Durango Plant"); and

Whereas, in accordance with the recommendation of the War Production Board, it is contemplated that additional facilities estimated to cost approximately Four Hundred Thousand Dollars ($400,000) will be constructed as hereinafter mentioned in the vicinity of Grand Junction, Colorado, to have a capacity for the treatment of approximately one hundred (100) tons of vanadium ores per day in the production of vanadium ore concentrates (said facilities being hereinafter called the "Grand Junction Plant"); and

Whereas, Vanadium has had extensive experience in the treatment of vanadium ores for the production of vanadium concentrates and now owns and operates vanadium ore treatment plants similar to those proposed with regard to the Durango Plant and the Grand Junction Plant (the Durango Plant and the Grand Junction Plant being hereinafter collectively called the "Plants");

Now, Therefore, in consideration of the mutual covenants herein contained, Metals hereby appoints Vanadium as its agent, and Vanadium hereby accepts such appointment, to carry out the purposes hereinafter set forth on the terms and conditions following:

1. Construction of Grand Junction Plant.

Vanadium shall carry on investigation and preliminary engineering and design work needed for

Defendant U's Exhibit "D"—(Continued)

the construction of the Grand Junction Plant, it being contemplated that Defense Plant Corporation, Washington, D. C., will provide the necessary funds to construct the Grand Junction Plant, that title to the Grand Junction Plant will be vested in Defense Plant Corporation and that the Grand Junction Plant will be leased by Defense Plant Corporation to Vanadium. The terms on which such funds will be provided (including the terms of an option to purchase, if any) are subject to negotiation between Vanadium, Metals and Defense Plant Corporation.

2. Operation of Plants and Purchase of Ores.

Vanadium shall operate the Plants for Metals' account. Metals will have, at its option, representatives at the Plants who will act independently in sampling all shipments and have sole custody of all control samples. Vanadium shall exert its best efforts to purchase for Metals' account vanadium ores suitable for treatment in the Plants, at reasonable prices not to exceed fifty cents (50c) per pound of vanadium pentoxide contained, delivered at suitable loading points or ore receiving stations, unless Metals shall hereafter authorize the payment of prices for such ores in excess of said fifty cents (50c) per pound. Vanadium will also, upon written request of Metals, act as agent for Metals in selling or otherwise disposing of, and in shipping, the production of the Plants. Detailed instructions covering sales will be forwarded to Vanadium at a

Defendant U's Exhibit "D"—(Continued)

later date. Employees of Vanadium will not be employees of Metals for any purposes hereunder.

3. Processes and Patents.

Vanadium will make available for use in the operation of the Plants by it, without charge except as herein provided, all processes and patent rights owned by or available to it, relating to the treatment of vanadium ores and plant products, and it will also make available for use in the operation of the Plants, or either of them, during such period as same may be owned or operated by others, all such processes and patent rights at such reasonable charge as may be mutually agreed upon.

4. Costs and Reimbursements

Metals will pay or reimburse Vanadium from time to time for all costs and expenses incurred by Vanadium in carrying on the investigation and preliminary engineering and design work provided for in Section 1 of this agreement (but not in excess of a total of Ten Thousand Dollars ($10,000)), and for all costs and expenses incurred and paid by Vanadium in the occupancy, maintenance, repair, management and operation of the Plants, the purchase, handling and transportation of ores and plant products and the performance of its other duties hereunder, save as is hereinafter otherwise expressly provided, and for this purpose Metals will establish a revolving fund in favor of Vanadium in a bank or banks designated by Metals. Such costs and expenses, shall include, but without limitation, all

Defendant U's Exhibit "D"—(Continued)

costs and expenses of labor (as hereinafter outlined in more detail), materials, supplies, taxes (except income and excess profits taxes and taxes based upon income or profits), bonds, insurance, power, water, steam and other services, testing, accounting, training of personnel for the operation of the Plants, and traveling, and shall also include all costs and expenses which Vanadium may properly incur and pay under the provisions of the proposed construction and lease contract, when entered into, between Defense Plant Corporation and Vanadium with respect to the Grand Junction Plant and for which Vanadium will not be reimbursed by Defense Plant Corporation under said construction and lease contract. Costs and expenses of labor as hereinabove used shall include, but without limitation, all salaries and wages whether full-time or part-time, and including compensation for overtime, for work performed at the Plants or elsewhere, both in connection with preparations necessary for the operation of the Plants and in connection with the management, operation, occupancy, repair and maintenance of the Plants; all salaries and fees for services for technical, consultant-engineering, or other professional experts, whether performed on or off the Plant sites, or whether on a full-time or part-time basis; all extra compensation paid to employees engaged in operation of the Plants and all discontinuance wages paid to such employees; the amount directly chargeable to Vanadium for all group insurance, retirement income plan, and all other wel-

Defendant U's Exhibit "D"—(Continued)

fare and employee-relation plans maintained by Vanadium for the benefit of employees engaged in the operation of the Plants; and an equitably proportionate share, in connection with the operation of the Plants, of Vanadium's cost of all welfare and other employee-relation plans maintained by it for the benefit of its employees generally. The salaries of Vanadium's executive officers, fees of its attorneys, expenses in conducting its offices and other overhead expenses of Vanadium (except offices which may be established at or near the Plants for the purposes of this agreement) shall not be so included, except that it is agreed that direct expenses of officers and employees of Vanadium in connection with the operations hereunder shall be paid by Metals to the extent approved by Metals. The revolving fund will be replenished from time to time upon receipt of requisition from Vanadium therefor itemizing prior expenditures and certifying as to the necessity and reasonableness thereof and that payment has been made therefor, accompanied by receipted bills or evidence of payment. Vanadium will maintain a complete record of all expenditures and will account to Metals therefor quarterly, or oftener at Metals' request, by statements summarizing the payments covered by requisitions theretofore submitted, such statements to be accompanied by transcripts of the monthly bank statements and cancelled checks, to be returned to Vanadium after audit, or, in lieu of accounting to Metals in this manner, Metals may, at its option, audit at the

Defendant U's Exhibit "D"—(Continued)

Plants Vanadium's books and records pertaining to the operation of the Plants, the purchase of ores, and the other performance of this agreement. Metals is to have access to the Plants and all records pertaining thereto at any time. If requested by Metals, Vanadium will submit for Metals' approval, thirty (30) days before the beginning of each quarterly period, a budget of estimated expenditures for the operation of the Plants during such period, and no substantial expenditures for operation of the Plants not shown on such budget shall be made without the written approval of Metals. Quarterly expenditures for plant operation and the purchase of vanadium ores will be limited to Two Hundred Thousand Dollars ($200,000) and Seven Hundred Fifty Thousand Dollars ($750,000), respectively.

5. Compensation and Indemnity.

As full compensation for services rendered by Vanadium as agent for Metals hereunder, Metals will pay Vanadium a fee of three cents (3c) per pound of vanadium pentoxide (V_2O_5) contained in vanadium concentrates produced through the operation of the Plants, but in any event not less than Twenty-four Thousand Dollars ($24,000) for each year of the period of this agreement beginning with the date upon which the Plants, or either of them, have been made ready for operation. Metals agrees to protect, indemnify and save Vanadium harmless from and against all claims and demands made against it and all judgments, losses or damages suf-

Defendant U's Exhibit "D"—(Continued)

fered or incurred by it in the performance of this agency within the authority granted, which are not the result of Vanadium's negligence or intentional misconduct.

6. Advances and Deliveries.

In the event that any vanadium mines or prospects are found to require assistance in providing roads, transportation facilities, mining equipment, development, and working capital, then in each such case Vanadium shall furnish to Metals its written report on the requirements of such mine or prospect, together with its specific recommendations thereon. If Metals approve in writing the granting of the proposed advance or assistance in such a case, then Vanadium shall provide the same out of the revolving fund to be established hereunder by Metals, and Vanadium shall obtain and hold for Metals such evidence of and security for the advance as Metals may require and shall comply with all other requirements of Metals. In each such case of advance, the amount of the advance shall be deducted by Vanadium from the price of any ore produced by such mine or prospect upon Vanadium's subsequent purchase thereof, pursuant to Metals' instructions; but if in any such case the value of ore so produced be insufficient to repay such advance, wholly or partially, then, to the extent of such insufficiency, such advance shall be deemed to have been made for Metals' account insofar as Vanadium is concerned. Vanadium shall maintain rec-

Defendant U's Exhibit "D"—(Continued)

ords of all such advances made and of the amounts repaid thereon and shall render to Metals such reports concerning such advances and repayments as Metals may require.

7. Discharge of Duties.

Vanadium will carry on the operations in a good and efficient manner in accordance with accepted practices and all operations shall be carried on in a systematic, orderly and economic manner and in compliance with all applicable laws, rules, regulations and orders. It is impossible to detail all the various acts which Vanadium will or may be called upon to perform in discharging its duties herein, and in consequence, but without derogating from the authority hereinabove granted, Vanadium will do all such things as are reasonably necessary and proper in order to discharge its duties hereinabove set out in the course of acting for Metals.

8. Right to Purchase.

Upon the termination of this Agreement Vanadium shall have and is hereby granted for a period of ninety (90) days after such termination (hereinafter referred to as the "option period") the right and option by written notice to Metals to purchase the buildings, equipment and machinery constituting the Durango Plant at the actual cost to Metals thereof, less an amount representing depreciation, obsolescence and loss of value due to use for national defense purposes for each year or fractional part thereof, at the rate of twelve and one-half per cent (12%) of such actual cost per annum; pro-

Defendant U's Exhibit "D"—(Continued)

vided that in no event shall Vanadium have the right hereunder to purchase the Durango Plant at a price less than 25% of the actual cost of said plant to Metals. Metals further agrees to the extent that it lawfully may that it will not sell or convey said buildings, equipment and machinery or any part thereof to any party or parties other than another branch of the Government (which branch of the Government shall be bound by the provisions hereof) for a period of ninety (90) days following the expiration of the option period unless Metals shall first have offered the same for sale to Vanadium at a price equal to the best offer received by Metals and Vanadium shall have failed or refused to purchase the same within thirty (30) days after the receipt of such offer.

9. Congressional Clause.

No member of or delegate to the Congress of the United States shall be admitted to any share or part of this contract, or to any benefit arising therefrom, but this provision shall not be construed to extend to this agreement if made with a corporation for its general benefit.

10. Force Majeure.

Neither Metals nor Vanadium shall be responsible for delays, failure or omissions due to any cause or causes beyond its control, however arising, and which cannot be overcome by due diligence. Upon the cessation or rectification of the cause or causes of delay of performance hereunder, the time for such performance shall be extended by the num-

Defendant U's Exhibit "D"—(Continued)

ber of days during which performance was so delayed.

11. Term.

This agreement shall continue in effect from the date hereof and until termination of the existing national emergency and six months thereafter, but either party hereto may at its option terminate this agreement at any time by giving to the other party three (3) months' written notice of such termination.

In Witness Whereof, the parties hereto have caused this agreement to be executed by their respective corporate officers thereunto duly authorized and their respective corporate seals to be hereunto affixed as of the day and year first above written.

[Seal] METALS RESERVE COMPANY,
/s/ By G. TEMPLE BRIDGMAN,
Executive Vice President.

Attest:
/s/ (Illegible),
Secretary.

[Seal] UNITED STATES VANADIUM CORPORATION,
/s/ By F. P. Gormely,
Vice President.

Attest:
/s/ (Illegible),
Secretary.

Defendant U's Exhibit "D"—(Continued)

Resolution

Whereas, This Corporation has been authorized to produce, acquire, carry, sell, or otherwise deal in vanadium metal; and

Whereas, upon recommendation of the War Production Board, this Corporation, has entered into an agreement, dated April 9, 1942, with United States Vanadium Corporation for the construction, in the vicinity of Durango, Colorado, of a plant and facilities for the production of vanadium and its ore concentrates; and

Whereas, it is contemplated that Defense Plant Corporation will finance the construction of an additional plant and facilities for the production of vanadium and its ore concentrates in the vicinity of Grand Junction, Colorado; and

Whereas, upon recommendation of the War Production Board, this Corporation and United States Vanadium Corporation desire to enter into a contract under which United States Vanadium Corporation will operate the said Durango and Grand Junction plants and facilities as the agent of this Corporation and for its account;

Now, Therefore, Be It Resolved:

First, That this Corporation enter into the "Vanadium Agency Agreement," dated as of the 9th day of May, 1942, with United States Vanadium Corporation, in the form attached hereto.

Second, That the President, or a Vice President, of this Corporation be and he is hereby authorized

Defendant U's Exhibit "D"—(Continued)

and directed to execute and deliver the aforesaid Agreement in the name and on behalf of this Corporation, under its corporate seal, attested by its Secretary or its Assistant Secretary.

Third, That the appropriate officers of this Corporation be and they are hereby authorized and directed, upon the execution of the aforesaid Agreement by the parties thereto and upon effective delivery thereof, to take all action necessary or appropriate to carry out the aforesaid Agreement.

The foregoing resolution was duly adopted by the Executive Committee of Metals Reserve Company on May 16, 1942.

[Seal] METALS RESERVE COMPANY,
/s/ (Illegible),
Secretary.

DEFENDANT U'S EXHIBIT "I"

October 22, 1942

Mr. H. DeWitt Smith
Metals Reserve Company
Lafayette Building
Washington, D. C.

Approval Requested

Dear Mr. Smith:

Reference is here made to my letter of October 13, 1942, recommending the Metals Reserve Company Ore Milling Contract for concentrating Met-

Defendant U's Exhibit "I"—(Continued)

als Reserve Company sandstone Vanadium ores by Nisley and Wilson, as well as, an effort to arrange to place the Calamity District mines into production.

At this time, a third party, a mine operator, has been interested, and he has agreed to produce Vanadium ore from the Calamity mines upon receipt of a Trustee (Gateway Alloys, Inc., petition for bankruptcy) Lease on the mines. The Trustee and all interested parties in the bankruptcy proceedings have agreed to grant a mining lease that stipulates that the Metals Reserve Company shall purchase all Vanadium ores from the Lessor and pay to a Trustee's escrow account, $.08 per pound V_2O_5 contained, royalty, on all ores mined thereof.

I consider the above royalty, under the present circumstances, reasonable and just, and I recommend the same.

The Lessor will simultaneously sign a Metals Reserve Company Ore Purchase Agreement at the following basic prices:

For ore having a V_2O_5 content of 1.25%, 26c per pound.

For ore having a V_2O_5 content of 1.50%, 28c per pound.

For ore having a V_2O_5 content of 1.75%, 29c per pound.

For ore having a V_2O_5 content of 2.00%, 30c per pound.

Defendant U's Exhibit "I"—(Continued)

For ore having a V_2O_5 content of 2.50%, 32c per pound.

I recommend the above schedule; it is similar in every respect to our ore prices in other parts of the Vanadium area.

The operation of these mines will create a source of supply of Vanadium ore for the Nisley-Wilson Mill for which a contract has been requested from the Metals Reserve Company as of my letter of October 13, 1942, as well as an excess of lower grade ores for the Grand Junction Plant.

The estimated cost of ore delivered at the Nisley-Wilson Mill will be $.48 per pound V_2O_5 contained for 2.00% ore. Similar ore will cost $.53 per pound V_2O_5 contained at Grand Junction.

Now, therefore, your approval is requested for the consummation of these Agreements because you have already had several requests through the efforts of Mr. H. L. Gardner, an interested party with the Gateway Alloys, Inc. The above Agreements will clear the way in untangling a hitherto unworkable litigation by mutual agreement of all parties and place the well-mineralized Calamity area into production.

The United States Vanadium Corporation, Agent for Metals Reserve Company, will proceed with the installation af a Vanadium ore sampling plant, designed as recommended by Mr. Howland Bancroft,

Defendant U's Exhibit "I"—(Continued)

at Gateway, Colorado, at an estimated cost of $3250.00. It will be necessary to rent a plant site that will cost $15.00 per month.

Very truly yours,

UNITED STATES VANADIUM CORPORATION, AGENT FOR METALS RESERVE COMPANY,

/s/ J. W. HILL,

John W. Hill, Supervising Engineer.

JWH: pf

cc: Mr. J. R. Van Fleet
30 East Forty-second Street
New York, N. Y.

Mr. Blair Burwell
30 East Forty-second Street
New York, N. Y.

Mr. W. G. Haldane
30 East Forty-second Street
New York, N. Y.

DEFENDANT U'S EXHIBIT "J"

Metals Reserve Company
Washington, D. C.

Nov. 19, 1942

United States Vanadium Corporation
30 East 42nd Street
New York, New York

Attention: Mr. J. R. Van Fleet, Vice President

Gentlemen:

Reference is made to letter dated October 22, 1942 to Mr. H. DeWitt Smith from your Mr. John W. Hill, Supervising Engineer at Grand Junction, Colorado, requesting approval of the making of an agreement by your Corporation, as Agent for this Company under the Vanadium Agency Agreement dated as of May 9, 1942 between us, with the lessee of the Calamity District mines, covering the purchase of vanadium ores produced by the lessee from these mines.

We approve Mr. Hill's recommendations, and authorize you to enter into a purchase agreement with the above lessee for the purchase of ore produced from the above mines by the lessee, at the base prices stated in Mr. Hill's letter. As recommended by Mr. Hill, and in addition to the base prices to be paid to the lessee, the purchase agreement should provide for the payment directly to the lessor, the Trustee in Bankruptcy for Gateway Alloys, Inc., of a royalty of 8c per pound of vanadium pentoxide (V_2O_5) contained in ore purchased

Defendant U's Exhibit "J"—(Continued)

thereunder. The purchase agreement should also give you the option to cancel at any time after January 1, 1944. In addition to such other provisions as you may deem appropriate under the circumstances, the purchase agreement should incorporate the standard provisions contained in all Metals Reserve Company purchase contracts, which are enclosed herewith in the form of, and for use as, an exhibit to the purchase agreement and other purchase contracts entered into by you, as Agent for this Company.

As a condition to your entering into the above purchase agreement, your counsel should, of course, be satisfied that the above-mentioned lease is valid and binding upon the parties, and entitles the lessee to mine vanadium ore from the Calamity District mines.

Sincerely yours,

G. TEMPLE BRIDGMAN,
Executive Vice President.

cc: Mr. John W. Hill
Supervising Engineer
U. S. Vanadium Corporation
Grand Junction, Colorado

Mr. Blair Burwell
30 East 42nd Street
New York, New York

DEFENDANT U'S EXHIBIT "K"

Metals Reserve Company
Washington, D. C.

Nov. 25, 1942

United States Vanadium Corporation
30 East 42nd Street
New York, New York

Attention: Mr. J. R. Van Fleet, Vice President

Gentlemen:

In accordance with Paragraph 2 of the Vanadium Agency Agreement dated as of May 9, 1942, as amended, between your Corporation and this Company, the Gateway Colorado vanadium ore treatment plant formerly owned by Gateway Alloys, Inc. and presently being operated by Messrs. Frank Nisley and Hays C. Wilson under lease from H. I. Gardner, is hereby designated as one of the vanadium ore treatment plants to be supplied with vanadium ore purchased by you under said Agency Agreement.

The terms upon which you are to furnish ore for the operation of the Gateway plant were agreed upon at a conference in Denver, Colorado, on October 8, 1942, attended by Messrs. H. I. Gardner, Frank Nisley, Blair Burwell (representing your Corporation) and O. R. Whitaker (representing Metals Reserve Company). We have incorporated these terms in a proposed Toll Agreement between your Corporation, as Agent for this Company, and Messrs. Nisley and Wilson, eight copies of which

Defendant U's Exhibit "K"—(Continued)

are enclosed herewith. If this agreement as enclosed is acceptable to you and Messrs. Nisley and Wilson, we authorize you, as Agent for this Company, to execute it, provided your counsel is satisfied that the lease under which Messrs. Nisley and Wilson are operating the Gateway plant is valid and binding upon the parties thereto. We have obtained a copy of this lease, together with other related documents, from counsel for Messrs. Nisley and Wilson, and these documents, together with a copy of the accompanying letter of their counsel, are enclosed herewith.

The enclosed Agreement provides in substance that for a period of ninety (90) days your Corporation, as Agent, will supply vanadium ore for the operation of the Gateway plant, that such ore will be treated at said plant in consideration of the treatment charges specified in the Agreement, and that all fused vanadium oxide, together with all tailings, produced from such ore will be returned to you, as Agent, at the Gateway plant. The Agreement has been prepared upon the basis of a term of ninety (90) days from the date of its execution, it being contemplated that operation of the plant during this period will furnish a basis for a subsequent agreement. Accordingly, during the term of the enclosed Agreement, you should request and obtain from Messrs. Nisley and Wilson such complete information as to costs of operation, etc. as may be necessary for this purpose.

Defendant U's Exhibit "K"—(Continued)

You will act as shipping agent for this Company, arranging for the shipment of vanadium oxide and tailings returned to you by Messrs. Nisley and Wilson to consignees designated by us, and following our written instructions as to means of transportation, routing and forwarding bills of lading, invoices and other related documents.

Upon execution of the enclosed Agreement by your Corporation, as Agent, and Messrs. Nisley and Wilson, please return to us for our files one executed original counterpart.

Sincerely yours,

METALS RESERVE COMPANY,
/s/ G. TEMPLE BRIDGMAN,
G. Temple Bridgman,
Executive Vice President.

Enclosures

cc: Messrs. Nisley & Wilson
Grand Junction, Colorado
Mr. Blair Burwell
30 East 42nd Street
New York, New York
Mr. O. R. Whitaker
932 Equitable Building
Denver, Colorado
J. W. Hill
Grand Junction

E.S. DIST. CT. N. D. CAL.
No. 29008
Dept. U
FILED JUN - 4 1958
CLERK, U.S. DISTRICT COURT
BY H. R. Pettigrew
DEPUTY CLERK

NBM216 77 5 EXTRA XC=GRANDJUNCTION COLO (7) 1127A
HARRY K MASTERS, CARE MOLYBDENUM CORPN OF AMERICA=
500 FIFTH AVE=

OPERATION OF GATEWAY ALLOYS PLANT US NOW SHUT DOWN PE[illegible]
MOLYBDENUM CORPORATION AGREEMENT OF LEASE REFERRED TO [illegible]
LETTER DECEMBER 12 AND YOUR REPLY DECEMBER 21 STOP [illegible]
VERY MUCH APPRECIATE YOUR FINAL APPROVAL WHICH I UNDERSTAND
DEPENDS UPON YOUR CONSEL JAMES S CRAWFORD STOP IF APPROVAL
WOULD YOU PLEASE WIRE MR J. W. HILL, GRANDJUNCTION, COLO.
GATEWAY ALLOYS TRUSTEES CAN PROCEED WITH DELIVERY OF [illegible]
AND START PLANT OPERATIONS. REGARDS=

BLAIR BURWELL UNITED STATES VANADIUM CORPN
AGENT FOR METALS RESERVE CO.

1

Above 1/7/58 Crawford 2nd Jan
Crawford will over Hill that approval
approved provided it does not affect
have under the original Contract if
in case there follo Jan

'44

DEFENDANT U'S EXHIBIT "O"

Inter-Company Correspondence

Company: United States Vanadium Corp.
Location: New York City.

Date: October 12, 1943.

To: Mr. J. W. Hill, Supervising Engineer, United States Vanadium Corporation, Agents for Metals Reserve Company, Grand Junction, Colorado.

Copy to: Mr. J. R. Van Fleet, Mr. Blair Burwell.
Subject: Nisley-Wilson.

Dear John: Enclosed is copy of letter dated today which I am sending to Metals Reserve Company in connection with extension of Toll Agreement between ourselves and Nisley and Wilson. Also enclosed is copy of letter dated today which deals with recovery figures at the Nisley-Wilson Plant.

One executed copy of supplemental agreement is returned for your files.

Yours very truly,

/s/ G. DONALD EMIGH.

vl/G. Donald Emigh
ICC
att.

Defendant U's Exhibit "O"—(Continued)

bc: Mr. J. R. Van Fleet
Mr. Blair Burwell
Mr. J. W. Hill

October 12th, 1943

Metals Reserve Company
Washington 25, D. C.

Attention: Mr. H. DeWitt Smith
Subject: Toll Agreement (Nisley-Wilson)

Gentlemen:

Enclosed is executed copy of a supplemental agreement entered into as of July 6, 1943, by United States Vanadium Corporation as Agents for Metals Reserve Company and Nisley and Wilson, a partnership operating vanadium plant at Gateway, Colorado. The attached agreement extends the Toll Agreement, entered into January 26, 1943 by the same two parties, from the period of its expiration July 1, 1943 to January 1, 1944.

From our wire of June 30th to you and from conversations in the interim we have recommended to you that the treatment charges to be paid under this supplemental agreement should initially be the same as those provided for in the toll agreement dated January 6, 1943. We are in this letter hereby reaffirming that our examination of the records of the Nisley-Wilson operation, copies of which have been sent you, indicates to us that present toll charges are necessary for the maintenance of this operation. It is our recommendation that these charges remain unchanged at this time.

Defendant U's Exhibit "O"—(Continued)

Attached to this letter are typewritten copies and photostatic copies of the following correspondence:

(1) Letter from our Colorado attorney, Mr. E. B. Adams, dated October 4th, 1943.

(2) Our letter to our Mr. J. W. Hill dated September 28th, 1943.

(3) Letter from our attorney, Mr. E. B. Adams, dated September 22, 1943.

(4) Copy of certification signed by Alta Hall, acknowledging receipt of $1156.50 from Mr. H. I. Gardner. Copy of this certification was forwarded to our New York office attached to our Mr. Hill's letter dated July 29th.

We believe the above correspondence concerning the right of Nisley and Wilson to continue during the term of the present agreement, is sufficient for your needs, if not, we shall be glad to obtain whatever more is necessary.

Yours very truly,

UNITED STATES VANADIUM CORPORATION,
As Agents for Metals Reserve Company,

/s/ G. DONALD EMIGH.

vl/G. Donald Emigh
USVC

Defendant U's Exhibit "O"—(Continued)

October 12th, 1943

Metals Reserve Company
Washington 25, D. C.

Attention: Mr. H. DeWitt Smith
Subject: Nisley-Wilson Vanadium Operation

Gentlemen:

In the August Progress Report on the vanadium operations, three copies of which were sent recently to your Mr. Petterson, it was pointed out that recovery to date in the Nisley Wilson vanadium mill at Gateway, Colorado, is between 66.30% and 67.80%. The Toll Agreement of January 26th, under Clause 6, provides that the V_2O_5 content of the fused vanadium oxide produced shall not be less than 70.00% of the V_2O_5 content in the ore treated.

With present recovery figures at hand it is apparent that the operators of the Nisley-Wilson plant are not making the 70.00% recovery. In our judgment this plant is being handled in an efficient manner and the recoveries being made are not out of line with those effected at other vanadium plants in this region.

We recommend to Metals Reserve Company, therefore, that in the Toll Agreement dated January 26th, 1943 in Clause 6, the minimum recovery figure of 70.00% be changed to 65.00%.

Defendant U's Exhibit "O"—(Continued)

Yours very truly,

UNITED STATES VANADIUM
CORPORATION,
As Agents for Metals Reserve
Company,

/s/ G. DONALD EMIGH.

vl/G. Donald Emigh
USVC

bc: Mr. J. R. Van Fleet
Mr. Blair Burwell
Mr. J. W. Hill

October 7th, 1943

Metals Reserve Company
Washington 25, D. C.

Attention: Mr. H. DeWitt Smith

Re: Toll Agreement dated January 26th, 1943 with Nisley & Wilson

Gentlemen:

We have received in our office on October 6th a letter from you inquiring into the status of the supplemental agreement between ourselves and the operators of the Nisley-Wilson Vanadium Mill at Gateway, Colorado.

We have in New York an executed supplemental agreement which you had previously approved and also have in New York an opinion from our counsel concerning the legal right of Nisley and Wilson

Defendant U's Exhibit "O"—(Continued)

to continue operations at the Gateway plant during the term of the supplemental agreement. The writer did not believe our counsel's opinion was sufficiently clear for your purpose and some time back wrote our Mr. J. W. Hill in Colorado asking for a clearer opinion. We anticipate receiving this shortly and will forward it to you along with a copy of the agreement and our written recommendation as to toll charges.

Yours very truly,

UNITED STATES VANADIUM CORPORATION,
As Agents for Metals Reserve Company,
/s/ G. DONALD EMIGH.

vl/G. Donald Emigh
USVC

bc: Mr. J. R. Van Fleet
Mr. Blair Burwell
Mr. J. W. Hill

DEFENDANT U EXHIBIT "Q"

Exhibit No. 1
A-43-a
May 11, 1943
Letter Contract No. W-7405 eng-78
New York, New York

Union Mines Development Corporation
30 East 42nd Street
New York, N. Y.

Gentlemen:

The United States of America, acting through the undersigned Contracting Officer, has requested your Corporation to perform the work hereinafter outlined and we understand that in the interests of the war effort you are willing to exert your best efforts to perform such work, but it is understood that you make no representation or warranty whatsoever and assume no responsibility or obligation that the work can be successfully performed.

Accordingly, the United States of America, acting through the undersigned Contracting Officer, hereby places an order with you, that you shall with the utmost secrecy and dispatch, and in accordance with instructions of the Contracting Officer, or his duly authorized representative, furnish all labor, materials, and equipment not furnished by the Government, and services, and do all things necessary to cover the work anticipated in a survey of S-37 and the development of suitable processes of beneficiation for such S-37.

Defendant U Exhibit "Q"—(Continued)

Your fee for conducting this survey will be determined by the Contracting parties at a future date.

Funds for carrying out this work have been appropriated and are now available for use of the War Department under Procurement Authority No. ENG 31110 P-430-07 A-0905-23.

The Secretary of War finds that it is in the interest of the war effort that this work be not delayed awaiting negotiations of a formal contract and accordingly, you are hereby given formal notice to proceed with the survey.

It is contemplated that this contract will be supplemented by a formal contract between yourselves and the United States of America. All applicable contract clauses, required by Federal Law and Executive Order, to be incorporated in contracts for services of the kind herein specified, are hereby incorporated herein by reference. Such formal Contract will also include an appropriate clause providing for the termination of the contract for the convenience of the United States of America.

Upon your acceptance hereof, advance payments in accordance with the existing requirements of the War Department as set forth in W. D. Contract Form No. 24 may be made to you upon your application. Notwithstanding any other provision of this contract, you shall be under no obligation whatsoever to advance or use any of your own funds in the performance of this contract, but you shall be

Defendant U Exhibit "Q"—(Continued)

reimbursed as therein provided to the extent that you, at your option, may advance or use any of your own funds for such purpose.

In the event the United States of America is unable to negotiate with you a satisfactory contract to supplement this contract prior to August 15, 1943, this contract will terminate and the United States of America will pay you in full settlement hereof a sum equal to reimbursement for all costs incurred by you in connection with the performance of this contract plus such other sums as may have actually been or may be expended by you, in good faith, in settlement of all obligations, commitments and claims which you may theretofore have incurred, less any reimbursements previously made, but in any event the total payments shall not exceed the sum of Five Hundred Thousand Dollars ($500,000.00).

It is the understanding of the parties hereto, and the intention of this contract, that all the work is to be performed at the expense of the Government and that the Government shall hold you harmless against any loss, expense (including, but not limited to, expense of litigation) or damage (including, but not limited to, liability to third persons because of death, bodily injury, property injury, destruction, patents or otherwise) of any kind whatsoever arising out of or in connection with the performance of the work, except to the extent that such loss, expense, damage or liability is due to the per-

Defendant U Exhibit "Q"—(Continued)

sonal failure on the part of your corporate officers, or other of your representatives having supervision or direction of the work as a whole, to exercise good faith or that degree of care which they normally exercise in the conduct of your business.

Neither this contract nor any interest therein or claim thereunder shall be assigned or transferred by the Contractor to any other party or parties.

It is understood that disclosure of information relating to the work contracted for hereunder to any person not entitled to receive it, or failure to safeguard all secret, confidential and restricted matter that may come to the Contractor or any person under his control in connection with the work under this contract, may subject the Contractor, his agents, employees, and Subcontractors to criminal liability under the laws of the United States. (See Title 1 of an Act approved June 15, 1917, 40 Stat. 217; 50 U.S.C. 30-42), as amended by an Act approved March 23, 1940 (54 Stat., Chap. 72); and the provisions of an Act approved January 12, 1938, (52 Stat. 3; 50 U.S.C., Supp. V 45-45d), as supplemented by Executive Order No. 8381, dated March 22, 1940, 5 F.R. 1147, D.I.

The Contractor will not permit any alien employed or to be employed by it or by any sub-bidder or subcontractor to have access to the drawings, specifications and accompanying enclosures relating to the performance of this contract, or to the mod-

Defendant U Exhibit "Q"—(Continued)

els or material referred to therein, or to engineering principles, composition, sub-assemblies or assemblies which are vital to the functioning or use of article or articles forming the subject matter of this contract, without the written consent beforehand of the Secretary of War.

It is understood and agreed that the meaning of the code term S-37 as used herein as well as the general aims and procedure to be followed in the performance of the work hereunder shall be as set forth in a secret letter from the Government to the Contractor dated May 11, 1943, the contents of said letter constituting a part of this contract to the same extent as if fully set forth herein. A copy of said letter shall be kept on file in the Manhattan District Office.

If the foregoing is acceptable to you, it is desired that you indicate hereon and on the inclosed two copies of this letter and return the original and one copy to the Contracting Officer as soon as possible. Such acceptance will constitute this Order a Contract.

Very truly yours,

UNITED STATES OF AMERICA,

/s/ By K. D. NICHOLS,

K. D. Nichols,

Lt. Col., Corps of Engineers,

Contracting Officer.

Defendant U Exhibit "Q"—(Continued)

Accepted this 24th day of May, 1943.

UNION MINES DEVELOPMENT CORPORATION,
/s/ By J. R. Van FLEET,
President. (Title)

Exhibit No. 2

Contract No. W-7405 eng-78

Exploration and Development Contract

Contractor: Union Mines Development Corporation, New York, N. Y.

Contract For: Exploration and Development of S-37.

Estimated Cost: First year $750,000.00; Second year $3,500,000.00.

No Fixed Fee.

Payment: To be made by Finance Officer, U. S. Army at: U. S. Engineer Office, Manhattan District, New York, N. Y.

The supplies and services to be obtained by this instrument are authorized by, are for the purpose set forth in, and are chargeable to the following procurement authority or authorities, the available balances of which are sufficient to cover the cost of the same:

210/40141 E. P. OF E. & S. 1940-44 8-25562 P110-07.

. . . . . .

This contract is authorized by the following laws: Title II of the First War Powers Act, 1941, Act of

Defendant U Exhibit "Q"—(Continued)

December 18, 1941 (Public Law 354 — 77th Congress), and Executive Order No. 9001, dated December 27, 1941.

Exploration and Development Contract

This Contract entered into this 17th day of April, 1944, effective as of the 11th day of May, 1943, by and between the United States of America (hereinafter called the "Government"), represented by the Contracting Officer executing this contract, and Union Mines Development Corporation, a corporation organized and existing under the laws of the State of Delaware, with its principal business office at No. 30 East 42nd Street, New York, New York (hereinafter called the "Contractor");

Witnesseth That:

Whereas, The Government desires to determine and evaluate resources of S-37 and acquire the strongest possible control of the production and disposal of such resources as may be accessible and are considered to have commercial value, and to determine suitable methods of exploitation of such resources as may be found, and to develop suitable processes for beneficiation of any supplies of S-37 as may be required; and

Whereas, in the accomplishment of this work, the Government desires to utilize among others the services of the Contractor under a contract providing for reimbursement of costs, entered into after negotiations approved by the Secretary of War, and without advertising for proposals, and such con-

Defendant U Exhibit "Q"—(Continued)

tract is authorized by law, and will facilitate the prosecution of the War; and

Whereas, as a result of such negotiations, the Secretary of War has directed the Government to enter into a contract with the Contractor to accomplish such purposes;

Now, Therefore, the parties hereto do hereby mutually agree as follows:

Title I
Statement of Project

Article I-A—Objectives and Scope

1. The Contractor shall, at the cost and expense of the Government (see Title II) and in accordance with instructions of the Contracting Officer, exert its best efforts to furnish all labor, materials and equipment not furnished by the Government, and otherwise do all things necessary to determine and evaluate the resources of S-37, to make recommendations for the acquisition of the strongest possible control of the production and disposal of such resources as may be accessible and are considered to have commercial value, to make recommendations for suitable methods of exploitation of any such resources as may be found, and to make recommendations for the beneficiation of any supplies of S-37 which may be acquired (all work to be performed by the Contractor under this Contract being hereinafter sometimes called the "Project"). Except as the

Defendant U Exhibit "Q"—(Continued)

Contracting Officer may otherwise direct or approve, the Contractor shall conduct the Project with the utmost secrecy and dispatch and shall not inform its subcontractors or other outside organizations that any of the Project is being performed for the Government.

In addition to the foregoing, other general objectives of the Project are as follows:

(a) To determine as quickly and accurately as possible, the total S-37 resources of each geographical area broken down into three classes, (1) Proven, (2) Semi-proven or Reasonably Certain and (3) Conjectural.

(b) To evaluate the commercial productive possibilities of each of the three classes of resources in terms of richness of the S-37 and quantities of each grade of S-37 available in separate deposits or localities.

(c) To make recommendations and, to the extent mutually agreed upon between the parties hereto, make suitable arrangements for prompt exploitation of the S-37 resources as may be accessible and are considered to have commercial value.

(d) To prepare estimates from time to time of quantities and qualities of the S-37 resources which can be produced. These estimates shall be broken down into two classes, (1) Economical Rates of Production and (2) Maximum Rates of Production, together with estimates of production costs, for both classes.

Defendant U Exhibit "Q"—(Continued)

2. As a part of the Project, the Contractor shall work along the following lines:

(a) Library and institutional research of available literature bearing on the Project objectives shall be conducted for the purpose of collecting the maximum information with regard to known occurrences of S-37 and related geological factors. Preliminary and final reports covering this phase of the Project shall be prepared on separate geographical areas. The results shall be evaluated, and recommendations prepared concerning the character and scope of physical investigation which should be made leading toward the accomplishment of the ultimate Project objectives. The Contractor shall exert its best efforts to complete the initial study of such available literature by December 31, 1944.

(b) In accordance with programs which shall be prepared and recommended by the Contractor and to the extent directed or approved by the Contracting Officer, the Contractor's field forces shall conduct preliminary reconnaissance, surface prospecting, detailed geological mapping, sub-surface prospecting, and other physical exploration and development work at promising locations of S-37. Concurrently with such field work, analyses of ore samples shall be made in analytical laboratories.

(c) When promising deposits of S-37 are discovered or are reasonably believed to exist as a result of the work hereunder the Contractor shall make recommendations to the Contracting Officer for the

Defendant U Exhibit "Q"—(Continued)

acquisition of the strongest possible control of the production and disposal of the desired resources. In accordance with such recommendations and to the extent directed or approved by the Contracting Officer, the Contractor shall, as a part of the Project, exert its best efforts to acquire (by purchase, staking, filing, refiling or otherwise) claims discovered by the Contractor in carrying out the Project on all mineral deposits containing or believed by the Contracting Officer and/or by the Contractor to contain S-37 or to contain other mineral deposits of value which the Government wishes to own directly or through a Governmental Agency. All such claims so acquired shall be located, filed or otherwise acquired in the name of the Contractor or otherwise as the Contracting Officer shall direct. The Contractor is empowered, upon the direction or approval of, and to the extent authorized in writing by, the Contracting Officer, to purchase or otherwise acquire for the Government or a Governmental Agency, as the Contracting Officer may direct, hold in its name or otherwise as the Contracting Officer may direct, secure or grant leases of, obtain options for rights in, assign, transfer, sell or otherwise dispose of metals, minerals, and ores, lands containing metals, minerals, or ores, and claims or other rights with regard to metals, minerals, or ores. Such right, title and interest to any property, real or personal, leasehold or option, as may be acquired by the Contractor pursuant to this paragraph shall, unless

Defendant U Exhibit "Q"—(Continued)

such property shall be abandoned or otherwise disposed of as approved by the Contracting Officer, be held by the Contractor for the Government or a Governmental Agency, as the Contracting Officer may direct, and be turned over to the Government or such Governmental Agency at the request of the Contracting Officer, subject to any leases, claims, options or other rights in third parties not granted by the Contractor or granted by the Contractor with the approval of the Contracting Officer.

* * * * *

Article IV-J—Disclosure of Information

It is understood that disclosure of information relating to the work contracted for hereunder to any person not entitled to receive it, or failure to safeguard all secret, confidential and restricted matter that may come to the Contractor or any person under its control in connection with the work under this contract, may subject the Contractor, its agents, employees, and subcontractors to criminal liability under the laws of the United States. (See Title I of an Act approved June 15, 1917, (40 Stat. 217; 50 U.S.C. 30-42), as amended by an Act approved March 23, 1940 (54 Stat. Chap. 72); and the provisions of an Act approved January 12, 1938 (52 Stat. 3; 50 U.S.C., Supp. V 45-454), as supplemented by Executive Order No. 8381, dated March 22, 1940, 5 F.R. 1147 D.I.).

* * * * *

In Witness Whereof, the parties hereto have

Defendant U Exhibit "Q"—(Continued)

executed this contract in triplicate as of the day and year first above written.

THE UNITED STATES OF AMERICA,

/s/ By K. D. NICHOLS,
K. D. Nichols,
Lt. Col., Corps of Engineers,
Contracting Officer.

UNION MINES DEVELOPMENT CORPORATION,

/s/ By J. R. Van FLEET,
President,
30 East 42nd St., New York, N. Y. (Business Address).

Two Witnesses as to Execution by the Contractor:

/s/ KENNETH RUSH,
30 East 42nd St., New York, N. Y.,

/s/ W. G. HALDANE,
30 East 42nd St., New York, N. Y.

Duly Verified.

DEFENDANT U EXHIBIT "R"

United States Vanadium Corporation
Agent For Metals Reserve Company
Grand Junction, Colorado

December 20, 1943

Metals Reserve Company
Washington 25, D. C.

Gentlemen:

Attached hereto is the Progress Report for the month of November, 1943, covering the operations of the United States Vanadium Corporation, Agent for Metals Reserve Company, in the procurement of sandstone vanadium ores.

Included in this report, under the heading of "Condensed Monthly Report" for Durango, is a breakdown of the United States Vanadium Corporation's operating fee for the Durango Plant at 2c per pound of V_2O_5 contained in the fused oxide produced at Durango, Colorado, and 1c per pound of V_2O_5 for the fused oxide for purchasing the ore as approved by Mr. S. H. Petterson on December 7, 1943.

Very truly yours,

UNITED STATES VANADIUM CORPORATION, AGENT FOR METALS RESERVE COMPANY,

/s/ JOHN W. HILL,
John W. Hill, Supervising Engineer.

JWH:fr

Defendant U Exhibit "R"—(Continued)

Report of
United States Vanadium Corporation
Agent for Metals Reserve Company

November 30, 1943

Durango Plant

General

Ore receipts for the month were 4670.163 dry tons containing 195647.3 pounds of V_2O_5, and 174003 pounds of CaO. The milled tonnage was 2862.504 dry tons with an average assay of 2.08% V_2O_5 or its equivalent of 118908.4 pounds of V_2O_5. The lime averaged 1.82% CaO or 104432 pounds of CaO. Without the application of the loss factor, the dry tons to stockpiles becomes 1807.659, 46.6% of which was Placerville Roscoelite. The Placerville stockpile now contains 4,588.463 dry tons at 1.74% V_2O_5 or 159,682.5 pounds of V_2O_5. A composite sample of eight cars of Placerville was run some time ago for U_3O_8 with a result of 0.12%.

Roasting Plant

The roaster average thruout was 95.407 dry tons per day. The circulating load of flue dust averaged 7.65 tons per day over the dry heads. The calcined ore contained 1.35% W. S. V_2O_5 from 2.08% V_2O_5 heads giving an extraction which averaged 62.52%.

The composite sample of Roaster Feed roasted in the laboratory resulted in an overall weight loss of 3.36% in volatile and combustible losses, dust being negligible under laboratory conditions. The follow-

Defendant U Exhibit "R"—(Continued)

ing is a comparison of the actual and laboratory results:

	Wt. Loss	% NaCl	% Tot. V_2O_5	% W.S. V_2O_5	% Extrac.	% Res. NaCl
Lab.	3.356	6.90	2.06	1.60	76.2	3.95
Act.	?	6.14	2.08	1.35	62.52	2.37

Roaster operation was practically continuous since there were only four hours lost time for drag cooler drive repair.

Leach Plant

Estimated tonnage by tank fills was 2708.75 tons of tailings to the pound. Weight loss from dry heads to tailings was 5.37%. This loss is apparently very low and is used to compensate for those that may have been too high. The laboratory results on a calcine composite show an over-all weight loss on water soluble alone of 5.2%. Of this amount 1.30% V_2O_5 and 2.38% residual NaCl represent known water soluble compounds. The over-all weight loss with salt and pyrite in was 9.946 in the laboratory and 11.17% in the plant.

A weighted composite of tailings assayed 0.84% V_2O_5 and 0.24% U_3O_8. The content of the current tailings to the pond was 43955.6 pounds of V_2O_5 and 13,002.0 pounds of U_3O_8.

Precipitation

Total precipitations this month were 69,924.6 pounds of V_2O_5. The washed red cake to fusion contained 69,225.4 pounds of V_2O_5. Recovery by V_2O_5 to fusion was 58.22%.

Defendant U Exhibit "R"—(Continued)

Fusion

Sacked Oxide produced totals 78660 pounds at the average assay of 87.103% V_2O_5 or 68515.29 pounds of V_2O_5. Recovery by the final product was 57.62%.

As of November 30, 67633.24 pounds of V_2O_5 remained in storage. Shipments to date total 885415 pounds of V_2O_5 and production to date totals 953048.24 pounds of V_2O_5.

Nisley & Wilson Vanadium Mill

The Nisley & Wilson Vanadium Mill at Gateway, Colorado, delivered 11,243.10 pounds of V_2O_5 to this office at Grand Junction, Colorado, which was the amount of V_2O_5 produced from 16,246.82 pounds of V_2O_5 available for treatment. This indicates a recovery of 68.3% for a total cost of V_2O_5 delivered of $1.56 per pound.

The Nisley & Wilson Vanadium Mill has been notified that their present operating agreement with the Metals Reserve Company terminates on January 1, 1944. At that time the plant circuit will be cleaned up and all V_2O_5 tied up in the plant inventory will be delivered to the Metals Reserve Company and final settlement will be made of the Nisley & Wilson account. It is anticipated that some loss will occur as it will not be possible to obtain the vanadium tied up in the low-grade circulating liquors.

At this time there are 2787.47 tons of ore, containing 101,310.05 pounds of V_2O_5 stockpiled at

Defendant U Exhibit "R"—(Continued)

Gateway, Colorado. In the anticipation of the continued storage of this Gateway stockpile, a new lease arrangement is being made with H. I. Gardner for the continued storage of the ore at Gateway.

Ore Procurement

Costs and Amounts.

During this month 7,650.04 dry tons of ore containing 309,976.75 pounds of V_2O_5 including all receipts were accounted for in the procurement of sandstone ores. This month's receipts show an increase of 952.89 dry tons over the month of October. The only reason for this increase would be the completion of the harvest season and the termination of the big game hunting season.

The cost per pound of V_2O_5 contained in ores purchased plus the direct stockpile expense and the allocated overhead expense for this month was $.568, an increase of 2c per pound over the previous month. Of the increase of 2c per pound approximately 1c per pound can be accounted for as increased direct stockpile expenses. It can be noted that at Thompsons, Utah, the expenses have increased approximately 75%; Moab, Utah, 73%; Dove Creek, Colorado, 42%; Gateway, Colorado, 63%. In all cases the increase in cost is due principally to maintenance and replacement of worn equipment. At Thompsons the gravity sampler splitters had to be replaced as well as the crusher jaws. At Moab numerous parts had to be supplied

Defendant U Exhibit "R"—(Continued)

and replaced in the crushing unit, and similarly at Dove Creek as well as repairs on the Dolores County gasoline power unit. The invoice on this power unit was not presented for payment although the work had been completed for many months. We are endeavoring to make the necessary repairs on the sampling plants as time permits.

The principal item of increase as noted on the Summary of Costs of Sandstone Vanadium Ores, under the heading of "Rate per pound V_2O_5" is ores received from Farmington. It shows an increase from $.623 to $.788. It will be noted that the receipts for the current month were only 47.64 dry tons of ore containing 1994.47 pounds of V_2O_5, and against this amount was charged the direct stockpile expense of $298.25. Of this amount $288.00 was paid to Ledoux and Company for the assaying of the Wade, Curran ores. This amount has been collected from Wade, Curran and Company and has appeared as a credit heretofore.

At Monticello, Utah, producer's ore showed an increase of $.022 per pound of V_2O_5 contained in ores received. This increase is due to recommended increases in price on two small producers in that area. This increase in price is justified due to the fact that these two producers have been producing an appreciable tonnage at a cost to Metals Reserve Company below the average ore purchase price. The increase was made to allow some development and maintenance of production for the re-

Defendant U Exhibit "R"—(Continued)

mainder of the ore purchasing program. New contracts were made that stipulated thirty-day cancellation clauses.

No other changes in ore prices will be made. The date of the above ore contracts was November 1, 1943.

Operations

The operations at all receiving stations were conducted on a normal basis.

Rare Metals of Colorado, Inc. Lease

As of November 30, 1943, 4,135.07 has been expended at the Rare Metals, Inc. mine near Placerville, Colorado. Of this amount approximately $1400.00 was spent in October for air and water lines, air hose, hand tools, jackbits, and $450.00 for labor. In the month of November approximately $1500.00 was spent, the principal items being drill steel, switches, powder, caps, fuse, opinion on obstracts, expense accounts, transportation charges, building materials, jackbits, rental on compressor and miscellaneous items. Labor for the month of November was $773.17. The total anticipated expenditures for the month of December will be $5800.00. It is estimated that the air and water lines and track will be installed in the principal adit by the middle of next month.

The No. 5 Portal and the surface buildings will be completed and active development work will be undertaken by December 20th, 1943.

* * * * *

DEFENDANT U EXHIBIT "T"

Metals Reserve Company October 4th, 1944
Washington 25, D. C.

Attention: Mr. H. DeWitt Smith, Executive Vice President.

Gentlemen:

In reply to your letter of September 30, 1944, we are enclosing our check for $86,152.16 in payment for purchase of buildings, machinery and equipment located at Durango, County of La Plata, Colorado, as per bill of sale executed as of July 31, 1944, from the Metals Reserve Company. This covers:

Depreciated price of Durango Plant	$90,736.60
Allowance for Fire Loss	4,656.94
Net Purchase Price	$86,079.66
Pro rata share of annual rental of $100.00 paid by Metals Reserve Company to American Smelting & Refining Company	72.50
Total Payment	$86,152.16

We are also enclosing one counterpart of the assignment of lease.

We understand that Metals Reserve Company will make payment on the portion of taxes assessed against the property for 1944 when due, which is

Defendant U Exhibit "T"—(Continued)

covered by the period of Metals Reserve Company ownership.

Yours very truly,

UNITED STATES VANADIUM CORPORATION,

Vice President.

vl/Blair Burwell
USVC encl.
bc: Messrs. J. R. Van Fleet
W. G. Haldane

DEFENDANT U EXHIBIT "U"

Conformed Copy

Agreement made as of the 13th day of October, 1944, by and between United States Vanadium Corporation, a corporation created and existing under the laws of the State of Delaware, and having an office at 30 East 42nd Street, New York, N. Y., herein called "Contractor", and Metals Reserve Company, a corporation created pursuant to Section 5d of the Reconstruction Finance Corporation Act, as amended, to aid the Government of the United States in its national defense program and war effort and having an office at 811 Vermont Avenue, N.W., Washington 25, D. C., herein called "Metals Reserve",

Witnesseth:

Whereas, the Contractor has acquired or is about to acquire from Metals Reserve, the ownership of

Defendant U Exhibit "U"—(Continued)

the vanadium plant at Durango, Colorado, mentioned in, and in accordance with the option contained in, a certain agreement between the parties hereto identified as Agency Agreement AA-92; which plant is hereinafter referred to as the Durango Plant; and

Whereas, Metals Reserve is the owner of a certain stockpile of vanadium bearing ores located at or near said Durango Plant, it being estimated that said stockpile contains approximately 21,609 short tons of crude vanadium ore, and Metals Reserve is desirous of having the said ore processed and treated in said Durango Plant by the Contractor upon the terms and conditions hereinafter set forth;

Now, Therefore, in consideration of the premises Contractor and Metals Reserve hereby agree as follows:

1. Subject to the provisions and conditions hereinafter mentioned, the Contractor shall process and treat the aforesaid vanadium bearing ores at said Durango Plant, and deliver to Metals Reserve in the form of sacked fused vanadium oxide f.o.b. railroad cars at said Durango Plant or storage warehouse at Durango, at option of Metals Reserve, an amount of sacked fused vanadium oxide equal to 62.62% of the V_2O_5 contained in said ore fed to said Durango Plant. All the rest, residue and remainder of said ore in the form of tailings, processed or partially processed material, or other-

Defendant U Exhibit "U"—(Continued)

wise, shall be and become the property of the Contractor, it being intended that if the quantity of V_2O_5 extracted from such ore and delivered in the form of fused vanadium oxide shall be less than 62.62% of the V_2O_5 content of the ore fed to the plant, then the Contractor shall make good the difference, and if the quantity extracted shall be more than 62.62% as aforesaid, the Contractor shall be entitled to retain the excess. All of said sacked fused vanadium oxide delivered hereunder shall contain a minimum of 84% V_2O_5, a maximum of 0.3% sulphur, a maximum of 1.5% insoluble material and shall otherwise conform to usual trade specifications and quality. Fused vanadium oxide not meeting the foregoing conditions may be rejected by Metals Reserve and Contractor shall replace same with sacked fused vanadium oxide meeting such conditions.

2. Metals Reserve shall pay to the Contractor an amount equal to 32.4c per lb. of V_2O_5 delivered hereunder in the form of fused vanadium oxide, packed in sacks, such payment to be made upon receipt of two copies of Contractor's invoice for treatment, accompanied by two copies of R.F.C. Form No. T-31 Voucher, signed copy of railroad bill of lading or storage receipt in form acceptable to Metals Reserve identifying the material, and two weight and analysis certificates certified by Contractor. All billings by the Contractor hereunder shall be based upon Contractor's analyses and ex-

Defendant U Exhibit "U"—(Continued)

cept in the case of final billing shall be made on the basis of carload lots. In the event that Metals Reserve shall dispute any analysis of the Contractor, final adjustment shall be made between the parties hereto on the basis of umpire laboratory analyses made pursuant to Article 6 hereof.

3. All weights of ore fed to the plant are to be determined by truck scale weights, of which Metals Reserve's representative has the right of inspection and check. At the time the truck weights are taken moisture samples are to be taken for the determination of moisture content. Moisture samples are to be stored in sealed cans and the moisture determined by standard methods as agreed to by the representative of Metals Reserve and the Contractor, or failing agreement as determined by an independent analyst. The resulting dry weights are to constitute the quantity of ore fed into the Durango Plant.

4. Daily samples of ore for the determination of the vanadium content of the ore fed into the plant will be taken by standard methods at a point and in a manner to be agreed upon by the representatives of Metals Reserve and the Contractor, preferably and if possible by automatic sampling methods. Such daily samples are to be divided into three parts. One of said parts shall be used for daily analysis by the Contractors; the second of said parts shall be delivered to the representative of Metals Reserve; and the third of said parts shall

Defendant U Exhibit "U"—(Continued)

be used for the composite sample hereinafter mentioned.

At the end of each ten day period the daily composite sample shall be used to make one weighted sample jointly by the representatives of Metals Reserve and the Contractor. This weighted ten day composite sample shall be divided into three parts. One of said parts shall be delivered to the Contractor; one of said parts to the representative of Metals Reserve; and the remaining part shall be retained for umpire analysis.

The Contractor shall deliver to representative of Metals Reserve written statements containing the following information:

a. The gross wet tons of ore fed to the plant each day and during each ten day period;

b. The net dry tons of ore fed to the plant each day and during each ten day period;

c. The V_2O_5 analysis and pounds of V_2O_5 contained in ore fed to the plant each daily period and during each ten day period;

d. The V_2O_5 analysis of the composite sample of ore fed to the plant each ten day period.

If Metals Reserve does not disagree in writing within thirty days after receipt of such statement, the V_2O_5 analysis of the composite sample therein stated shall be deemed accepted and shall be binding upon both parties as the determination of the V_2O_5 content of the ore fed to the plant during the period covered by such statement. Should Met-

Defendant U Exhibit "U"—(Continued)

als Reserve disagree with the V_2O_5 determination of the Contractor contained in such statement, Metals Reserve shall deliver to the Contractor, within such thirty day period, a written statement setting forth its determination. If the parties shall be unable to promptly reconcile the difference, then the part of the composite sample for the same period preserved for umpire analysis shall be delivered to the umpire laboratory agreed upon for this purpose. The umpire laboratory findings are to be final and binding upon both parties and the cost of umpire analyses shall be borne by the party whose determination was furthest from the umpire determination.

5. The finished fused oxide shall be weighed and sampled by representatives of Metals Reserve and the Contractor in accordance with standard practice as agreed upon by the representative of Metals Reserve and the Contractor, and three portions of such final sample shall be taken, one of such portions shall be delivered to the representative of Metals Reserve, one of such portions shall be delivered to the representative of the Contractor, and the third of such portions shall be retained for umpire analysis in the event of any dispute between the parties hereto as to the analysis thereof.

6. In the event of dispute as to the analysis of any sample or samples of ore fed to the plant and/or fused vanadium oxide delivered hereunder, the same shall be submitted to either Ledoux & Co.

Defendant U Exhibit "U"—(Continued)

Inc., Booth, Garrett and Blair or Andrew S. MacCreath and Son, as Metals Reserve may elect, as umpire laboratory, and the determination of such umpire laboratory shall be final and binding upon both parties.

7. Contractor agrees, upon request of Metals Reserve, to make available without compensation for the storage of sacked fused vanadium oxide pending sale or other disposition any existing storage capacity at said Durango Plant. Should Metals Reserve so request, Contractor also agrees to act without compensation as shipping agent for Metals Reserve and in this connection will arrange shipments of said sacked fused vanadium oxide pursuant to letters of instruction issued by Metals Reserve.

8. The processing of the ore shall be commenced as soon as practicable and Contractor shall and will complete this contract not later than twelve months from the date hereof. Contractor shall not be liable for any faliure to make deliveries or delay in making deliveries which may result from fire, strikes, Acts of God, or other causes beyond the control of the Contractor.

9. This contract shall be deemed to contain all of the provisions of subsection (b) of the Renegotiation Act, as amended by Section 701 of the Revenue Act of 1943 (Public Law 235, 78th Congress), enacted February 25, 1944; and in compliance with

Defendant U Exhibit "U"—(Continued)

that subsection the Contractor shall insert, in each subcontract (as that term is defined in said Act) entered into by the Contractor, a provision that: "This contract shall be deemed to contain all of the provisions of subsection (b) of the Renegotiation Act, as amended."

10. It is expressly understood and agreed that the convenants, conditions and provisions contained in Exhibit A, annexed hereto and made a part hereof, shall be and be deemed to be incorporated in this agreement to the same extent and with the same effect as if set forth herein at length.

In Witness Whereof, Contractor and Metals Reserve have caused this agreement to be executed in duplicate by their respective officers thereunto duly authorized, the day and year first hereinabove written.

UNITED STATES VANADIUM CORPORATION,

/s/ By J. R. VAN FLEET,
President.

METALS RESERVE COMPANY,

/s/ By H. DEWITT SMITH,
Executive Vice President.

MRC Form No. 21, revised 11/11/43

EXHIBIT A

1. Assignment. (a) Contractor shall not, without the prior written consent of Metals Reserve,

Defendant U Exhibit "U"—(Continued)

sell, assign or pledge this Contract or any of its rights, powers, privileges, duties or obligations hereunder. (b) Metals Reserve may assign its interest under this Contract to any other branch or agency of the Government of the United States of America, and upon such assignment such assignee shall acquire all the rights, powers and privileges of Metals Reserve hereunder and shall be bound by all the duties and obligations of Metals Reserve hereunder, and Metals Reserve shall thereby cease to have any rights, powers, privileges, duties or obligations hereunder, it being expressly understood that any such assignment by Metals Reserve of its i est in this Contract shall be subject to all the rights, powers, and privileges of Contractor hereunder and shall be conditioned upon such assignee's assuming all duties and obligations of Metals Reserve hereunder.

2. Non-Waiver Clause. The failure of either the Contractor or Metals Reserve to insist, in any one or more instances, upon the performance of any of the terms, covenants, and conditions of this Contract shall not be construed as a waiver or relinquishment of the future performance of any such term, covenant or condition by the other party hereto, but the obligation of such other party with respect to such future performance shall continue in full force and effect.

3. Notice. Notice to either party hereto shall be sufficient only if given in writing addressed to

Defendant U Exhibit "U"—(Continued)

such party at the address set forth in the Contract, or, if the Contract designates an Agent, to such Agent's address as set forth in the Contract, or to such other address as either party for itself may hereafter specify to the other in writing.

4. Default. Notwithstanding any other provisions of the Contract to which this is attached as an Exhibit, Metals Reserve may, by notice in writing to Contractor, cancel this Contract or any part thereof at any time, without payment of damages or penalty of any kind for such cancellation, in the event (a) a receiver, liquidator or trustee is appointed for Contractor or its property, or Contractor makes an assignment for the benefit of Creditors, or Contractor becomes insolvent, or a petition is filed by or against Contractor pursuant to any of the provisions of the United States Bankruptcy Act, as amended, for the purpose of adjudicating Contractor a bankrupt, or for the reorganization of Contractor, or for the purpose of effecting a composition or rearrangement with Contractor's creditors, and such receiver, liquidator, or trustee is not discharged or any such petition filed against Contractor is not dismissed within sixty (60) days, (b) of the liquidation or dissolution of Contractor (if Contractor is a corporation), whether voluntary or involuntary, (c) of default by Contractor in the performance of any of the terms, conditions or covenants of this Contract or any amendment or supplement thereto and the failure of Contractor

Defendant U Exhibit "U"—(Continued)

to cure such default within thirty (30) days from the giving of a written notice of such default by Metals Reserve to Contractor, (d) of the determination by Metals Reserve that Contractor obtained this Contract for the purpose of speculation.

5. Governing Law. This Contract shall be construed under and governed by the law of the State of New York.

6. Contingent Fees. Contractor warrants that Contractor has not employed any person to solicit or procure this Contract upon any agreement for a commission, percentage, brokerage or contingent fee. Breach of this warranty shall give Metals Reserve the right to deduct from any amounts due Contractor from Metals Reserve the amount of such commission, percentage, brokerage, or contingent fee or to recover said amount upon making demand therefor, without prejudice to any other rights of Metals Reserve.

7. Members of Congress. No member of or delegate to the Congress of the United States of America or Resident Commissioner shall be admitted to any share or part of this Contract or to any benefit that may arise therefrom, but this provision shall not be construed to extend to this Contract if made with a corporation for its general benefit.

8. Compliance with Applicable Laws. In the performance of this Contract, Contractor shall comply with and give all stipulations and representations

Defendant U Exhibit "U"—(Continued)

required by any applicable Federal, State, Municipal or local law, or Executive order, or any applicable rules, orders, regulations or requirements of any government department or bureau, including the provisions of and regulations under Walsh-Healey Act (49 Stat. 2036-2039) which are hereby incorporated herein by reference, but nothing herein contained shall be considered as preventing Contractor from contesting in good faith the validity of such law, rule, order, regulation or requirement or any charge that Contractor has not complied therewith. Contractor expressly agrees to comply with the applicable provisions of Executive Order 9301 establishing a minimum wartime workweek of forty-eight hours and any modifications thereof and any regulations issued pursuant thereto. Pursuant to Executive Order No. 8802 dated June 25, 1941 as amended by Executive Order 9346 dated May 27, 1943, Contractor hereby agrees that Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, or national origin and that Contractor will include in its subcontracts a similar provision obligating the subcontractor not to discriminate against any employee or applicant for employment because of race, creed, color or national origin.

DEFENDANT U EXHIBIT "Z"

Metals Reserve Company
Washington 25, D. C.

July 3, 1944

Union Mines Development Corporation
30 East 42nd Street
New York, N. Y.

Attention: Mr. J. R. Van Fleet, President.

Gentlemen:

Reference is made to Exploration and Development Contract No. W-7405 eng-78 effective as of the 11th day of May, 1943, between the United States of America (hereinafter called the "Government"), represented by the Contracting Officer executing the Contract, and yourselves. In aid of the war effort and of said Contract, you are hereby authorized by us to locate on Public Domain Lands in the so-called Colorado Plateau Area within the States of Wyoming, Colorado, New Mexico, Arizona and Utah mining claims containing carnotite and related ores subject to the following conditions:

All locations shall be made in your own name, but shall be made on our behalf and it is expressly understood and agreed that: any and all title acquired by you shall be transferred to our name or to the name of our nominee upon our request; the

Defendant U Exhibit "Z"—(Continued)

mining claims located pursuant to this authorization shall be only such claims as you shall be authorized to locate by the Government, acting through the Contracting Officer, as provided in Section 2.(c) of Article I-A, Title I of said Contract; this authorization is permissive only and you shall not look to us for reimbursement of any costs or expenses or for indemnification.

You shall promptly furnish us with a list of all mining claims as located by you from time to time, together with such detailed descriptions thereof as may be requested by us. You shall hold said claims, dispose of same and have the option rights regarding same as provided in said Contract No. W-7405 eng-78. The authorization contained in this letter may be cancelled by us at any time upon not less than fifteen days' prior written notice to you, provided that, if not previously terminated by us, said authorization shall terminate coincidentally with the termination of said Contract No. W-7405 eng-78 of which said termination you shall give us immediate notice in writing.

No Member of or Delegate to the Congress of the United States shall be admitted to any share or part of this Contract or to any benefit arising therefrom, but this provision shall not extend to this Contract if made with a corporation for its general benefit.

If the foregoing is agreeable to you, kindly indi-

Defendant U Exhibit "Z"—(Continued)

cate your acceptance by signing and returning to us the enclosed copy of this letter.

Very truly yours,

METALS RESERVE COMPANY,
/s/ CHARLES B. HENDERSON,

By Charles B. Henderson,
President.

Accepted and agreed to:

UNION MINES DEVELOPMENT CORPORATION,

/s/ By J. R. VAN FLEET,
President.

UNCLASSIFIED
FILED JUN - 5 1948

SECRET

This document consists of ... page(s)
Number ... of ... copies, Series ...

May 20, 1947

Unclassified
DOE/RG authority Johnson March 17 19

Union Mines Development Corporation
30 East 42nd Street
New York, N. Y.

Attention: Mr. J. R. Van Fleet

Gentlemen:

Reference is made to letter agreement dated July 3, 1944 between Union Mines Development Corporation and Metals Reserve Company, and to Exploration and Development Contract No. W-7405 eng-78 effective as of the 11th day of May, 1943 between the United States of America and yourselves.

As you know, pursuant to Public Law 109, 79th Congress, approved June 30, 1945, Metals Reserve Company was dissolved effective July 1, 1945, and all of its functions, powers, duties and authority, together with all of its documents, books of account, records, assets and liabilities of every kind and nature were transferred to Reconstruction Finance Corporation to be performed, exercised and administered by that Corporation in the same manner and to the same extent and effect as if originally vested in Reconstruction Finance Corporation.

Under date of May 1, 1947, we received a letter from Honorable David E. Lilienthal, Chairman, United States Atomic Energy Commission, informing us that Contract No. W-7405 eng-78 was transferred to the Atomic Energy Commission pursuant to Executive Order No. 9816, dated December 31, 1946, and requesting that Union Mines Development Corporation be instructed to transfer to the United States of America those mining claims acquired by it under said contract and held for and on behalf of Metals Reserve Company pursuant to said letter agreement dated July 3, 1944. The Commission is arranging for the preparation of the necessary transfer instruments.

Please, therefore, transfer to the United States of America, our nominee, all mining claims acquired by you under said letter agreement dated July 3, 1944. You will please contact the Atomic Energy Commission, which will prepare all necessary transfer instruments. We are forwarding a copy of this letter to the Atomic Energy Commission.

Under date of May 14, 1947, Honorable Sumner T. Pike, Acting Chairman of the Commission, wrote us advising that the Secretary of War has not excepted the right, title and interest of the War Department in the said claims from the transfers effected under Presidential Executive Order No. 9816 dated December 31, 1946.

Kindly acknowledge receipt hereof and inform us when the action herein requested has been consummated.

Very truly yours,

SECRET

Morris Levinson
Executive Director
Office of Metals Reserve

ASH:LM

FILE COPY

ELECTRO METALLURGICAL SALES CORPORATION

Unit of Union Carbide and Carbon Corporation

Carbide and Carbon Building UCC 30 East 42nd Street, New York 17, N. Y.

"ELECTROMET" FERRO-ALLOYS, METALS, AND OTHER METALLURGICAL PRODUCTS

OFFICES
Carbide and Carbon Building, New York 17, N. Y.
Union Commerce Building, Cleveland 14, Ohio
Carbide and Carbon Building, Chicago 1, Ill.
Adam Grant Building, San Francisco 4, Calif.
Brown-Marx Building, Birmingham 3, Ala.
General Motors Building, Detroit 2, Mich.
Oliver Building, Pittsburgh 22, Pa.

DEFENDANT UNION CARBIDE EXHIBIT No. 2-I

December 10, 19 40

ELECTRO METALLURGICAL SALES CORPORATION agrees to sell and

Continental Ore Company of New York, New York

agrees to buy Buyer's domestic manufacturing requirements

of Vanadium Oxide (Fused)

for delivery in as nearly equal monthly quantities as practicable at the respective prices, terms, and conditions set forth in this agreement, which shall continue until terminated by either party giving not less than six (6) months' prior written notice to the other party.

The prices and terms of payment for the standard grade or grades and sizes of this material, applicable in the zone or zones in which Buyer's plants are located, are shown on the schedule hereto attached and made a part of this agreement. The boundaries of the established price zones are shown on the reverse hereof.

The prices which are in effect may be revised by the Seller at the beginning of any calendar quarter year by giving not less than fifteen (15) days prior written notice to the Buyer. Such revised prices shall become effective at the beginning of such calendar quarter year and shall remain in effect until again revised in the manner hereinbefore provided. If any such revised prices are not acceptable to the Buyer, the Buyer may cancel future tonnage contracted for hereunder to which such revised prices apply by giving written notice to the Seller not less than ten (10) days prior to the beginning of such calendar quarter year.

Deliveries are subject to strikes, riots, war, governmental acts and regulations, fires, explosions, accidents, acts of God, delays in procuring sufficient or suitable raw materials, delays of carriers, curtailment of or failure in obtaining sufficient electrical power, and other similar or dissimilar contingencies affecting the Seller or the manufacturer of the material and beyond its reasonable control.

During any time in which the Seller is not satisfied with the Buyer's financial responsibility, the Seller may change the terms of payment or suspend deliveries.

The Buyer shall pay all existing and future taxes imposed *by reason of sale or delivery* under this agreement.

The benefits and obligations of this agreement shall extend to the successors and assigns of the respective parties.

This agreement shall not be effective until approved by an officer or manager of the Seller and when so approved shall supersede all prior agreements covering the same material. No change in or addition to the terms hereof shall be made unless approved in writing by an officer or manager of the Seller, and an authorized representative of the Buyer.

ELECTRO METALLURGICAL SALES CORPORATION

ACCEPTED: CONTINENTAL ORE COMPANY

BY Henry V. Geer

BY

APPROVED: Herbert Dunford

DIVISION MANAGER

Form 6700—PU-20856

Defendant Union Carbide Exhibit No. 2-1--(Continued)

ELECTRO METALLURGICAL SALES CORPORATION

Unit of Union Carbide and Carbon Corporation

Carbide and Carbon Building UCC 30 East 42nd Street, New York 17, N. Y.

"ELECTROMET" FERRO-ALLOYS, METALS, AND OTHER METALLURGICAL PRODUCTS

PRICE SCHEDULE

VANADIUM OXIDE (FUSED)—EASTERN ZONE

Analysis:

Vanadium Oxide (V_2O_5)	86-89%
Sodium Oxide (Na_2O)	10% approximately
Calcium Oxide (CaO)	2% approximately

CONTRACT PRICE—Effective November 8, 1943

In Any Quantity $1.10

Price is per pound of vanadium oxide (V_2O_5) contained in the compound. Delivery is f.o.b. carrier at works or warehouses of the Seller with transportation charges not exceeding railroad freight allowed to destination. Terms are net cash thirty (30) days from date of invoice.

NON-CONTRACT PRICE is $.05 higher than above price, and is subject to change without notice.

DEFENDANT U EXHIBIT 2-R

Nisley & Wilson Vanadium Mill
Gateway, Colorado

Mr. Paige Edwards **July 9, 1943**
Metals Reserve Company
Monticello, Colo.

Dear Mr. Edwards:

Enclosed please find copies of letters sent to John Hill regarding continuation of the Toll Agreement. We have asked for an extension of the present arrangement.

Sincerely yours,

NISLEY & WILSON,
/s/ FRANK NISLEY JR.

[Pencil Notes: Other Metals. Refer Hill's Letter 7/13/43. Agreement for 6 months from July 1st.—Hill's Letter 7/16/43. Recov. to date 72%. 1—2% in amount excell. product.]

Defendant U Exhibit 2-R--(Continued)

Nisley & Wilson Vanadium Mill
Gateway, Colorado

Mr. John Hill — July 8, 1943
Supervising Engineer
Metals Reserve Company
Grand Junction, Colorado

Dear Mr. Hill:

We are submitting a report of our costs per pound of V_2O_5 produced during the month of June which we think is a representative cost of our operation. These costs very closely compare with the costs which we presented to Mr. Burwell and Mr. Whitaker at the time the Toll Agreement was drawn up.

Although we have not been able to reach our capacity due to explanation shown in letter enclosed, we are satisfied to continue under the same terms and conditions as specified in the Toll Agreement dated January 26th, 1943, which we are now operating under. We feel that the extension of the Toll Agreement should continue the operation for as long as the Metals Reserve Company is purchasing ores in the Gateway District.

We would appreciate your immediate attention to this matter.

Sincerely yours,

NISLEY & WILSON,
/s/ FRANK NISLEY JR.

Defendant U Exhibit 2-R—(Continued)

Nisley & Wilson Vanadium Mill
Gateway, Colorado

Costs—Month of June

Pounds of V_2O_5 sacked & Shipped to Metals Reserve Co.		8,791.98
Pounds of V_2O_5 in Red Cake July 1	1422	
Pounds of V_2O_5 in Red Cake June 1	300	
	1122	1,122.00
		9,913.98

	Total	Cost per lb.
Plant operating costs	$5852.08	
Plus fusing & finishing cost 1122 lbs. Red Cake	56.10	
	$5908.18	59.5
Management	500.00	5.04
Interest & Depreciation		7.00
Taxes & Insurance		.83
Misc., Transportation & Communication		3.01
		75.38
Mill Rental & Profit		5.14

Costs Based on June Production. Heads of 1.948 % V_2O_5 @ 80.52c per lb. treatment charge.

DEFENDANT U EXHIBIT 2-U

[Letterhead of Nisley & Wilson Vanadium Mill]

Mr. Henry J. Leir — December 13, 1943
Continental Ore Company
New York, New York

Dear Mr. Leir:

We have been informed by the United States Vanadium Corporation as Agents for Metals Reserve Company that the present contract with them will not* be renewed after the expiration date of January 1, 1944. The M.R.C. have about 3500 tons of raw ore stockpiled at our plant at the present time. We do not know yet what will be done with it.

The trend in this section is for the Metals Reserve Company to relinquish ore buying contracts and drop out of the ore buying business. Control of production is to be returned to individual companies.

The most serious problem which will arise out of the change of control, as far as the production of vanadium is concerned, is the buying of vanadium ores. The M.R.C. have raised the price of ore to such a high level that it will make the cost of the finished product 20c over the old price of $1.10. It will not be possible at the present time at least to buy the crude ore at the prices existing before the M.R.C. began buying ore. The M.R.C. raised the raw ore price from the old level of 21c

*Underscored in pen.

Defendant U Exhibit 2-U—(Continued)

to 31c per pound of contained V_2O_5. The hauling price was also raised on the ore. The raises will amount to about 20c per pound of recovered vanadium pentoxide. This raise can be readjusted in time but at present labor is scarce and also costs more per ton of ore produced. The raise in ore price is the only serious problem which we see in the way of production.

We would appreciate any information which you may be able to give us concerning a market for the vanadium after the first of the year and also the price. We would like to formulate plans as soon as possible for the change in operation.

We appreciate very much your past cooperation and sincerely hope that plans can be made for an operation which will be of mutual benefit.

Sincerely yours,

NISLEY & WILSON,
/s/ FRANK NISLEY JR.

[Pencil Notes: a.1 in flakes ground 1/16". b.1 1.10 $ Basis 1% Na_2O.]

DEFENDANT U EXHIBIT No. 2-Y

[Letterhead of Nisley & Wilson Vanadium Mill]

Mr. Henry John Leir
Continental Ore Company
500 Fifth Avenue
New York City

May 15, 1944

Dear Mr. Leir:

Since I have been called to service in the Navy and leave day after tomorrow, I thought it best to write you a note regarding the status of the mill.

For the time being Mr. Wilson, Mr. Gardner and myself have decided to leave the mill intact pending future developments. Mr. Wilson intends to go to other work. Mr. Gardner therefore will look after the plant. Should anything of interest develop I would suggest that you contact Mr. Gardner at Glenwood Springs. As you know Mr. Gardner is doing other work and has kept the chemist, who was with us since the mill started and who is familiar with the plant operation, with him. The plant could be operated again should the occasion demand on fairly short notice.

There is one other matter which should be straightened out. As you know we had some drums on hand which belong to you. At the time we started production under the M.R.C. program you will remember that you had an order for our production thru the M.R.C. We wrote you concerning the matter and your Company write us that we

Defendant U Exhibit No. 2-Y—(Continued)

could use the drums to ship the material in. Later however the program was changed. However our material was stored in your drums. Since you did not take the material, the drums were stored in the warehouse in Grand Junction. A few days ago the M.R.C. shipped the material from Grand Junction. I informed Mr. Hill again that the drums were your property. He asked me that we find out the price on the drums and they would pay for them if it would be alright instead of returning them as the cake is to be stored and therefore will not be removed from them except by special demand. If it is alright with you to accep cash for them and if you will send us the price on them we will collect for them and send you the check. We still have some of the drums stored at the plant. If you will write to Mr. Wilson at Gateway immediately telling us what you wish done about the matter, he will take care of it, either returning drums to you or preferable paying for them. Mr. Wilson will be at the plant for a week or two yet.

Sincerely yours,

NISLEY & WILSON,
/s/ FRANK NISLEY JR.

DEFENDANT U EXHIBIT No. 3-C

[Envelope]

Postmarked: Houston, Texas, 3 P.M., October 8, 1944. Free.

From Frank Nisley Jr., (Sic) Co. 40 S-1 N.T.S., University of Houston, Houston, Texas.

Addressed to: Mr. H. J. Leir, Continental Ore Company, 500 Fifth Avenue, New York City, New York.

(Copy)

U. S. Navy—E.E. & R.M.

University of Houston, Houston, Texas

Mr. Leir 10/8/44
c/o Continental Ore Company
500 Fifth Avenue
New York City

Dear Mr. Leir:

Last week Mr. Wilson wrote me regarding the Gateway plant. As you may know Mr. Gardner isn't interested in operating it himself. He is interested in contracting and that keeps him busy.

I'm sort of helpless in the situation at least until the war is over. The question bothering Mr. Wilson was what to do about the plant, and whether we should attempt to hold it intact until later on, or should it be salvaged and expenses connected with the plant stopped thereby.

Before I attempt to make a decision as to where I stand, I would like very much to have your opin-

Defendant U Exhibit No. 3-C—(Continued)

ion on the outlook for a market for vanadium after the war. Does the picture look at all favorable for a return to normal or to the condition existing just prior to the war?

Personally, if there is a chance to have anywhere near the same conditions as existed just prior to the Metal Reserve Company's entrance into the picture, I would very much like to continue the Gateway operation and with average chances, I feel confident we could have a very steady and profitable operation.

Harry Gardner has suggested in the past a way by which we could bring the business under one ownership entirely whereby we could charge the plant as we saw fit. This would clear the old Gateway alloys entirely from the picture.

Mr. Balsley wrote me a few days ago and he mentioned in his letter about a new program affecting uranium which was being put into effect by the government. He is quite concerned over the way Sec. Ickes is removing Grand country area from filing rights.

I have been going to school since leaving Great Lakes and expect to be in school for at least 8 more months. The course is rather a fast one and quite general. We get electricity as well as radio, sound equipment, radar, and all related subjects. We spend from 7:30 in the morning until 9:30 at night in school with little time in between except

Defendant U Exhibit No. 3-C—(Continued)

for meals. This climate is very warm but other than that we can't complain.

Would surely appreciate your opinion as to the possibilities of a vanadium industry or market for vanadic oxide after the war if you find time to write.

Sincerely,

FRANK NISLEY, JR.

DEFENDANT U EXHIBIT No. 3-Q

North Continent Mines, Inc. July 14, 1942
231 South La Salle Street
Chicago, Illinois.

Gentlemen:

Attention: Mr. W. P. Hendricks.

Re: Vanadium Concentrates.

We should like to refer to our conversation of yesterday, and to thank you very much for the courtesies extended to the writer.

We informed you that since the Apex Smelting Company is at present unable to carry on their ferro department because of urgent Government commitments, we have made arrangements to continue this business in a plant located on Long Island, near New York City.

We understand that the necessary changes in your plant will be completed shortly, so that you

Defendant U Exhibit No. 3-Q—(Continued)

will be in a position to deliver the regular vanadic acid 85%, instead of iron vanadate, as you do now.

In this connection, we informed you of our present price schedule for regular vanadic acid, which is as follows:

Monthly Deliveries

Less than 3,000 lbs.....$1.10 per lb. V_2O_5
Between 3,000 & 10,000 lbs.... 1.12½ per lb. V_2O_5
Between 10,000 & 20,000 lbs... 1.15 per lb. V_2O_5
f.o.b. producers shipping point.

The moment you start shipments of vanadic acid, the prices mentioned above will, of course, also be applied to your deliveries.

During the interim, we agreed to pay you for your iron vanadate the minimum price provided in the above schedule, that is $1.10 f.o.b. your shipping point.

The address of our plant is as follows:

Continental Ore Corporation
51-40 Manila Street
Winfield
Long Island, N. Y.

The address to be notified is:

Continental Ore Corporation
500 Fifth Ave.
New York, N. Y.

We leave it up to you whether shipments are made by rail or truck. If by rail, routing should be as follows:

Long Island Railroad Delivery.

Defendant U Exhibit No. 3-Q—(Continued)

As to terms of payment, we asked you to let us know your wishes, and expect to hear from you in this respect.

We are enclosing photostatic copy of our general license to process vanadium, which, of course, will be supplemented each month by the allocation from the War Production Board, as heretofore.

In order to be able to make the necessary applications in time and to contact our customers regarding the sale of the finished product, we would appreciate your informing us between the tenth and fifteenth of each month as to the quantities you expect to have available for shipment during the following month.

We are convinced that our direct relationship with you will prove to be pleasant and satisfactory for all parties concerned.

Very truly yours,

CONTINENTAL ORE CORPORATION,
Martin Wolf.

mw/o
enc.

P.S. Regarding allocation for August, we noted that you will have between 10,000 and 12,000 lbs. V_2O_5 available next month, and we therefore are applying to the WPB for 12,000 lbs. V_2O_5 from you during August.

DEFENDANT U EXHIBIT No. 4-A

Nisley & Wilson
Vanadium Mill
Gateway, Colorado

August 3, 1942

Gentlemen:

We are pleased to inform you that we have received copy of the allocation (the original of which you will receive) issued by the WPB, authorizing you to ship to us 4,500 lbs. V which is equivalent to about 9,500 lbs. of vanadic acid.

We also received your wire reading

> "Have shipped by Ringsby Truck to Apex 6507 pounds of vanadic acid. Other 500 pounds can be shipped with approximately 2000 more on August 10 if satisfactory."

for which we thank you.

Because of urgent government work in the aluminum and magnesium field at the Apex Smelting Co. plant in Chicago, we have shifted our ferro-alloys production to our Long Island plant for the duration of the war. We would, therefore, appreciate your making all future shipments to

Continental Ore Corporation
51-40 Manila Street
Winfield, Long Island
New York

The address to be notified is

Continental Ore Corporation
500 Fifth Avenue
New York, New York

Defendant U Exhibit No. 4-A—(Continued)

If shipment is made by rail, routing should be as follows:

Long Island Railroad Delivery.

If shipment is made by truck, the value to be specified is $50 per shipping package (drum or bag). If you ship by rail, please declare value of 5c a lb.

We opened today a letter of credit for the 2,500 lbs. of acid you intend to ship on August 10. We based our figures on a price of $1.10 per lb. V_2O_5, f.o.b. Gateway, Colorado. We will make price adjustment as soon as the material is received and we know what quantities will be shipped during August.

As you will see from the letter of credit, we stipulated that you have to present

our certificate of weight (plant's weighmaster)
Ledoux' certificate of analysis

for payment.

We trust that this arrangement is satisfactory to you. (We talked to Ledoux and they informed us that they require three days for an analysis of V_2O_5.)

Very truly yours,

CONTINENTAL ORE CORPORATION,
Martin Wolf.

mw/sk

DEFENDANT U EXHIBIT No. 4-H

[Letterhead of Continental Ore Company]

May 4, 1943

Electro Metallurgical Sales Corp.
Alloy, West Virginia

Gentlemen:

Re: 178 bags Fused Vanadium Oxide

Your order number 24892

Thank you for your shipping advice of April 30 regarding the above shipment made to our address at Langeloth, Pa.

We would very much appreciate your kindly giving us the complete analysis of each of the three lots.

We would also appreciate your attaching copy of the bill of lading to your invoice as we need it for our bookkeeping department.

Thank you for your kind attention.

Very truly yours,

CONTINENTAL ORE COMPANY,
/s/ MARTIN WOLF,
Manager.

M. Wolf/sk
5/17

[Pencil Note: 5/17 — Harrison has asked the mine to send a shipping notice giving Su, Insolubles, and V_2O_5]

DEFENDANT U EXHIBIT No. 4-R

(Copy)

Metals Reserve Company
Washington, D. C.

Mr. M. Wolf — August 4, 1944
Continental Ore Company
500 Fifth Avenue
New York 18, New York

Dear Mr. Wolf:

Please refer to your letter of July 25, 1944, inquiring about vanadium pentoxide.

Our stockpile of Fused Vanadium Oxide at East St. Louis consists of three analyses of V_2O_5; viz, 85.22%—85.06%—87%, all in the form of flakes and if any of this material is of interest to you we shall be pleased to receive your offer for a given quantity.

For your information, we no longer have the material in Colorado which was at one time of interest to you.

Very truly yours,

E. L. MURPHY.

Mr. Wolf

Let us discuss this on the phone.—Should we not buy say 5 tons for the purpose of filling our several trial orders. I have a feeling, that we could buy this material at 1.00 Doll fob East St. Louis.

How can we find out, how much of it is in stock?

Defendant U Exhibit No. 4-R—(Continued)

Metals Reserve Company
Washington 25, D. C.

Continental Ore Company
500 Fifth Avenue
New York, New York

Sep. 20, 1944

Gentlemen:

Subject to the terms and conditions of the contract enclosed herewith in duplicate, Metals Reserve Company will sell to you approximately 4,353 pounds of vanadium pentoxide (V_2O_5) contained in approximately 5,049 pounds of fused vanadium oxide, dry basis, at the price of $1.10 per pound of contained vanadium pentoxide (V_2O_5), to be delivered f.o.b. railroad cars at your plant, Winfield, Long Island, New York promptly upon receipt of your shipping instructions satisfactory to this Company.

Both copies of the contract should be executed by an authorized officer of your Company with its corporate seal affixed thereto and returned to this office, upon receipt of which an executed copy will be promptly forwarded to you. The date of the contract will be inserted at the time of its execution by Metals Reserve Company.

Certified check covering preliminary payment and shipping instructions should be forwarded to the Traffic Manager, Metals Reserve Company, Wash-

Defendant U Exhibit No. 4-R—(Continued)

ington 25, D. C., who will, upon receipt of same, arrange the details for delivery of the material.

Sincerely yours,

/s/ S. D. STRAUSS,
S. D. Strauss,
Vice President.

Metals Reserve Company
Washington, D. C.

CONTRACT

Seller: Metals Reserve Company, 811 Vermont Avenue, N. W., Washington 25, D. C. (hereinafter called "Seller"), agrees to sell and deliver,

Buyer: Continental Ore Company, 500 Fifth Avenue, New York, New York (hereinafter called "Buyer"), agrees to buy and receive,

Material: Fused Vanadium Oxide (hereinafter called "Oxide"), containing 86.22% vanadium pentoxide (V_2O_5).

Quantity: Approximately 4,353 pounds of vanadium pentoxide (V_2O_5) contained in approximately 5,049 pounds of oxide, dry basis.

Delivery: The oxide is available for prompt shipment from Seller's East St. Louis, Illinois stockpile and shall be delivered f.o.b. railroad car Buyer's plant at 51-40 Manila Street, Winfield, Long Island, New York, upon receipt of preliminary payment provided for hereinafter and sub-

Defendant U Exhibit No. 4-R—(Continued)

ject to Buyer's promptly furnishing shipping instructions satisfactory to Seller.

Price: One Dollar Ten Cents ($1.10) per pound of contained vanadium pentoxide (V_2O_5).

Weights: Weights as determined upon arrival of the oxide at Buyer's plant by Ledoux & Company, Inc., New York, New York shall be conclusive as to quantity, the cost of such weighing to be divided equally between Buyer and Seller:

Sampling, Moisture Determination and Analysis: The oxide has been sampled and analyzed and the moisture determined in accordance with the usual practice by Ledoux & Company, Inc., whose analysis shall be conclusive as to quality. Cost of such sampling, analysis and moisture determination shall be borne equally by Buyer and Seller.

Payment: Preliminary payment of $4,313.14 shall be made to Seller prior to delivery, with final payment and adjustment, if any, to be made promptly upon receipt of Seller's invoice, with certificates of weights and analysis attached.

Force Majeure: If the performance of any part of this Contract by either Seller or Buyer is prevented, hindered or delayed by reason of any cause or causes beyond the control of Seller or Buyer, then the Seller or Buyer, as the case may be, shall be excused from such performance during the continuance of any such happenings or events.

Defendant U Exhibit No. 4-R—(Continued)

Congressional Clause: No member of or delegate to the Congress of the United States shall be admitted to any share or part of this Contract or to any benefit arising therefrom, but this provision shall not be construed to extend to this Contract if made with a corporation for its general benefit.

Cancellation: Notwithstanding any other provision hereof this Contract may be canceled by Seller with respect to any oxide remaining undelivered after October 31, 1944.

Executed in Duplicate.

Dated: September 26, 1944.

METALS RESERVE COMPANY,
(Seller)
/s/ By S. D. STRAUSS,
Vice President.

(Seal) CONTINENTAL ORE COMPANY,
(Buyer)
/s/ By HENRY J. LEIR,
Henry J. Leir, Gen. Partner.

MR C-1 S-1477 (Vanadium)

DEFENDANT U'S EXHIBIT "4-T"

November 1, 1944

Imperial Paper & Color Corporation
Pigment Color Division
Glens Falls, N. Y.

Att: Mr. A. F. Brown, General Manager
Re: Metals Reserve's Vanadium Stocks

Gentlemen:

We refer to your recent visit here, when you wanted to get an idea as to the quantities of vanadium at present held by Metals Reserve Company, or other government agencies.

Unfortunately, these figures are not readily available, but as far as we can ascertain, the stocks at the beginning of this year were approximately as follows:

*Ferro Vanadium: About 500,000 pounds V in the form of 40% ferro vanadium.

*Vanadium Pentoxide: About 1,500,000 pounds V in the form of 85% V_2O_5.

Lead Vanadate: About 160,000 pounds V contained.

We heard, however, that these stocks were recently reduced by reason of the fact that the Vanadium Corporation of America,** in order to fill some

*[Note: Marginal note "x Wall Street Journal July 17, 1944."]

**[Note: Marginal note "xx Mirel Oct. 28, 1944".]

Defendant U's Exhibit "4-T"—(Continued)

export orders for ferro vanadium, bought 250,000 pounds of V contained in vanadium pentoxide from Metals Reserve, so that present stocks of vanadium pentoxide should be reduced to about 1,250,000 pounds, if not lower.

These figures are arrived at on the basis of various, scattered information, and as soon as more precise data are available, we will of course let you know.

Very truly yours,

CONTINENTAL ORE COMPANY,

Manager.

M Wolf
SG

ELECTRO METALLURGICAL SALES CORPORATION

Unit of Union Carbide and Carbon Corporation

UCC

DISTRIBUTORS "ELECTROMET" BRAND
FERRO-ALLOYS, METALS, AND OTHER ELECTRO METALLURGICAL PRODUCTS

District Offices
Brown-Marx Building, Birmingham 3, Ala.
Carbide and Carbon Building, Chicago 1, Ill.
Union Commerce Building, Cleveland 14, Ohio
Oliver Building, Pittsburgh 22, Pa.
Adam Grant Building, San Francisco 4, Calif.

CARBIDE AND CARBON BUILDING
30 EAST 42ND STREET, NEW YORK 17, N. Y.

January 29, 19 46

ELECTRO METALLURGICAL SALES CORPORATION agrees to sell and

Continental Ore Company of New York, New York

agrees to buy Buyer's domestic manufacturing requirements of the following material for delivery in as nearly equal monthly quantities as practicable at the respective prices, terms and conditions set forth in this agreement which shall continue until terminated by either party giving not less than six (6) months' prior written notice to the other party.

VANADIUM PENTOXIDE

EASTERN ZONE

PRICE: Any Quantity $1.10

Requirements estimated to be approximately 1000 lbs. per month.

Prices are per pound of vanadium pentoxide (V_2O_5) contained in the compound. Delivery is f.o.b. carrier at works or warehouses of the Seller with transportation charges not exceeding railroad freight allowed to destination. The boundaries of the established price zones are shown on the reverse hereof. Terms are net cash thirty (30) days from date of invoice.

The prices which are in effect may be revised by the Seller at the beginning of any calendar quarter year by giving not less than fifteen (15) days prior written notice to the Buyer. Such revised prices shall become effective at the beginning of such calendar quarter year and shall remain in effect until again revised in the manner hereinbefore provided. If any such revised prices are not acceptable to the Buyer, the Buyer may cancel future tonnage contracted for hereunder to which such revised prices apply by giving written notice to the Seller not less than ten (10) days prior to the beginning of such calendar quarter year.

Deliveries are subject to strikes, riots, war, governmental acts and regulations, fires, explosions, accidents, acts of God, delays in procuring sufficient or suitable raw materials, delays of carriers, curtailment of or failure in obtaining sufficient electrical power and other similar or dissimilar contingencies affecting the Seller or the manufacturer of the material and beyond its reasonable control.

During any time in which the Seller is not satisfied with the Buyer's financial responsibility the Seller may change the above terms of payment or suspend deliveries.

The Buyer shall pay all existing and future taxes imposed *by reason of sale or delivery* under this agreement.

The benefits and obligations of this agreement shall extend to the successors and assigns of the respective parties.

This agreement shall not be effective until approved by an officer or manager of the Seller and when so approved shall supersede all prior agreements covering the same material. No change in or addition to the terms hereof shall be made unless approved in writing by an officer or manager of the Seller, and an authorized representative of the Buyer.

ELECTRO METALLURGICAL SALES CORPORATION

ACCEPTED:

Continental Ore Company

BY _____

BY _____

APPROVED:

Secretary

Defendant Union Carbide Exhibit No. 4-X--(Continued)

For use, in connection with Uniform Domestic Straight Bill of Lading adopted by Carriers in Official, Southern, Western and Illinois Classification territories, March 15, 1922, as amended August 1, 1930 and June 15, 1941 (Prescribed by the Interstate Commerce Commission.)

THIS MEMORANDUM is an acknowledgment that a B[illegible] covering the propert[illegible] in the date of the receipt[illegible] ding has been issued herein and is interim[illegible] rior of the property des[illegible] not the original Bill of Lading nor a copy or for filing or record. the Original Bill of Lading.

RECEIVED, subject to the classifications and tariffs i[illegible] the property described below, in apparent good order, except as noted (c[illegible] and condition of contents of packages unk[illegible] marked, consigned, and destined as indi[illegible] which said company (the word company being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its own road or its own water line, otherwise to deliver to another carrier on the route to said destination. It is agreed, as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained, including the conditions on back hereof, which are hereby agreed to by the shipper and accepted for himself and his assigns.

From ELECTRO METALLURGICAL COMPANY At Niagara Falls, N. Y. Agent's No. ____

By RED STAR Company DATE SHIPPED 19

CUSTOMERS ORDER NO. SEAL NOS. OUR ORDER NO.

NO 5147

Consigned to and Destination

CONTINENTAL ORE CORPORATION
ATTN: MR. M. WOLF
500 FIFTH AVENUE
NEW YORK NEW YORK

Mail or street address—For purposes of notification only.

Route

Car Initial

Car No

Number Packages	DESCRIPTION, SPECIAL MARKS AND EXCEPTIONS	WEIGHT (Subject to Corr.)	CLASS or RATE	CHECK

MAY 22 1945

†This Shipment is Correctly Described
Correct Weight is _____ lbs.
Subject to Verification by the TRUNK LINE FREIGHT INSPECTION BUREAU.
According to Agreement No. 198
ELECTRO METALLURGICAL CO.
Per _____ Shipper

†Shipper's imprint in lieu of stamp; not a part of Bill of lading adopted by Carriers.

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of consignor.)

If charges are to be prepaid, write or stamp here, "To be Prepaid."

Received $ _____ to apply in prepayment of the charges on the property described hereon.

Agent or Cashier

Per _____
(The signature here acknowledges only the amount prepaid.)

Charges advanced
$ _____

*If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is "carrier's or shipper's weight."
NOTE—Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.
The agreed or declared value of the property is hereby _____ per _____
specifically stated by the shipper to be not exceeding _____

ELECTRO METALLURGICAL COMPANY, Shipper, Per _____

Permanent post-office address of shipper, Niagara Falls, N. Y.

Per _____ Agent

UN-434-A © Ditto Forms

0460

DEFENDANT U'S EXHIBIT "4-Z"

January 29, 1946

Continental Ore Company
500 Fifth Avenue
New York 18, New York

Attention: Mr. M. Wolf, Manager

Gentlemen:

In compliance with your request we are enclosing herewith our standard form of agreement covering your requirements of vanadium pentoxide. We have left blank the quantity you estimate that you may require so that you may fill in that amount estimated to be your approximate monthly requirements.

If you will please sign both copies of the agreement and return them to us we shall be glad to return an approved copy for your files.

Very truly yours,

ELECTRO METALLURGICAL
SALES CORPORATION,

Secretary.

WEV:IMD
Encs.

[Note: Contract attached is the same as Exhibit U-4X.]

OFFICE OF PRICE ADMINISTRATION

(Document No 23586)

PART 1499—PERSONAL ALLOYS

[MPR 489]

TUNGSTEN, MOLYBDENUM, VANADIUM, COBALT, AND CERTAIN OTHER ALLOYS AND METALS

In the judgment of the Price Administrator it is necessary and proper to establish maximum prices for sales of tungsten, molybdenum, vanadium, cobalt, and certain other alloys and metals by a specific maximum price regulation. The Price Administrator has ascertained and given due consideration to the prices of tungsten, molybdenum, vanadium, cobalt, and certain other alloys and metals covered by this regulation prevailing between October 1 and October 15, 1941, and has made adjustments for such relevant factors as he has determined and deemed to be of general applicability. So far as practicable, the Price Administrator has advised and consulted with representative members of the industries which will be affected by this regulation.

In the judgment of the Price Administrator the maximum prices established by this regulation are and will be generally fair and equitable and will effectuate the purposes of the Emergency Price Control Act of 1942, as amended. A statement of the consideration involved in the issuance of this regulation is issued simultaneously herewith and has been filed with the Division of the Federal Register.*

Such specifications and standards as are used in this regulation were, prior to such use, in general use in the trade or industry affected.

§ 1499.154 *Maximum prices for tungsten, molybdenum, vanadium, cobalt, and certain other alloys and metals.* Under the authority vested in the Price Administrator by the Emergency Price Control Act of 1942, as amended, and Executive Order No. 9250 and 9328, Maximum Price Regulation No. 489 (Tungsten, Molybdenum, Vanadium, Cobalt, and Certain Other Alloys and Metals), which is annexed hereto and made a part hereof, is hereby issued.

AUTHORITY: § 1499.154 issued under Pub Laws 421 and 729, 77th Cong., E.O. 9250, 7 F.R. 7871, E.O. 9328, 8 F.R. 4681

* Copies may be obtained from the Office of Price Administration

MAXIMUM PRICE REGULATION 489—TUNGSTEN, MOLYBDENUM, VANADIUM, COBALT, AND CERTAIN OTHER ALLOYS AND METALS

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SECTION 1. *Maximum prices for tungsten*—(a) *Ferrotungsten.* The maximum prices for ferrotungsten shall be determined by using the maximum base prices and premiums, where applicable, set out below:

(1) *Analysis of standard grade*

	Percent
Tungsten	70–83
Carbon, maximum	0.60
Phosphorus, maximum	0.10
Sulphur, maximum	0.10
Silicon, maximum	1.00
Manganese, maximum	0.75
Copper, maximum	0.10
Arsenic, maximum	0.10
Antimony, maximum	0.08
Tin, maximum	0.20
Sum of tin, copper, arsenic, phosphorus, and sulphur, maximum	0.45

(2) *Maximum base prices for standard grade ferrotungsten.* The maximum prices per pound of contained tungsten for standard grade ferrotungsten, lump or ¼ X down, packed, f. o. b. producer's plant at Niagara Falls, New York, Washington, Pa., or York, Pa., shall be:

10,000 pounds or more	$1.00
2,000 to 10,000 lbs	1.00
100 to 2,000 lbs	1.10
Less than 100 lbs	1.15

(3) *Premiums*—(i) *Crushing to a specified mesh.* The highest premium for crushing to a specified mesh size which the seller charged during January, February or March 1943, may be added to the above prices. (This does not apply to ¼ X down.)

(ii) *Special analysis.* Premiums not exceeding 25 cents per pound of contained tungsten may be added to the above base prices for ferrotungsten of special analysis. By "special analysis" is meant an analysis varying substantially from the analysis for the standard grade, set forth above, and supplied at the request of and for the convenience of the buyer.

(b) *Other tungsten products.* The maximum prices for the tungsten products listed below shall be, except as otherwise provided in section 11, (1) the highest prices charged for such products by a seller on a delivery made during January, February or March 1943 to a purchaser of the same class, or (2) if the seller cannot make this determination on the basis of a delivery, the highest prices which the seller quoted for delivery of such products during January, February or March 1943 to a purchaser of the same class.

If the seller cannot determine his maximum prices under either of the above provisions, his maximum price shall be subject to the approval of the Administrator, as set forth in section 7 of this regulation.

The following tungsten products are covered by this paragraph:

- Tungsten metal powder
- Tungsten carbide powder
- Tungstic acid
- Tungstic oxide
- Ammonium para-tungstate
- Sodium tungstate
- Calcium tungstate
- Other alloys and compounds of tungsten which are consumed principally by the metallurgical industry

(c) *Tungsten ores and concentrates.* Tungsten ores and concentrates are exempt from the provisions of this regulation and the General Maximum Price Regulation.

N. B. For general terms see section 8 below

SEC. 2. *Maximum prices for molybdenum*—(a) *Ferromolybdenum, molybdic oxide and calcium molybdate.* The maximum prices per pound of contained molybdenum for any quantity of ferromolybdenum, molybdic oxide and calci-

um molybdate suitable for steel or iron manufacture, packed, f o b producer's plant shall be

Ferromolybdenum	80 86
Molybdic oxide technical (powder or briquettes)	80
Calcium molybdate	80

(b) *Other molybdenum products.* The maximum prices for the molybdenum products listed below shall be, except as otherwise provided in section 11, (1) the highest prices charged for such products by a seller on a delivery made during January, February or March 1942 to a purchaser of the same class, or (2) if the seller cannot make this determination on the basis of delivery, the highest prices which the seller quoted for delivery of such products during January, February or March 1942 to a purchaser of the same class.

If the seller cannot determine his maximum prices under either of the above provisions, his maximum price shall be subject to the approval of the Administrator, as set forth in section 7 of this regulation.

The following molybdenum products are covered by this paragraph:

Molybdenum metal powder
Molybdenum carbide powder
Molybdic acid
Molybdenum trioxide
Molybdenum silicide
Sodium molybdate
Ammonium molybdate
Other molybdenum alloys and compounds which are consumed principally by the metallurgical industry

(c) *Molybdenum ores and concentrates.* Molybdenum ores and concentrates are exempt from the provisions of this regulation and the General Maximum Price Regulation.

N B For general terms see section 8 below.

SEC. 3. *Maximum prices for vanadium.*—(a) *Ferrovanadium.* The maximum prices per pound of contained vanadium for standard crushed sizes of the grades and analysis of ferrovanadium shown, in any quantity, f o b Niagara Falls, N Y or Bridgeville, Pa. with freight allowed to destination on quantities of 25 pounds or over, up to but not in excess of the freight rates from the basing point to St. Louis, Missouri, shall be determined by using the following maximum base prices and premiums where applicable:

(1) *Maximum base prices*

Grade	Analysis: Percent V minimum	Analysis: Percent C maximum	Analysis: Percent Si maximum	Prices: Contract	Prices: Spot
A Open hearth	30	12.00	1.50	$2.70	$2.80
B Crucible	35	6.00	1.00	2.80	2.90
C Primex	35	1.50	.20	2.80	2.90

(2) *Premiums for crushing.* The standard crushing sizes for all grades of ferrovanadium are from lump size down to and including 20 mesh X down. Premiums per pound of contained vanadium may be added to the above base prices for crushing or grinding to smaller sizes as follows:

Quantity	48 mesh X down	65 to 100 mesh X down	150 or 200 mesh X down
Carload lots	$0.03	$0.04	$0.06
Ton lots	.04	.08	.09
Less than ton lots to 200 lbs	.08	.10	.12
Less than 200 lbs	.10	.20	.25

(b) *Vanadium pentoxide.* The maximum prices per pound of contained V_2O_5 for air dried or fused vanadium pentoxide, f o b Niagara Falls, N Y or Bridgeville, Pa., with freight allowed to destination on quantities of 25 pounds or over, up to but not in excess of the freight rate from the basing point to St. Louis, Missouri, shall be determined by using the following maximum base prices and premiums, where applicable:

(1) Maximum base contract price, any quantity	$1.10
(2) Maximum base spot price	
800 lbs. and over	1.15
Less than 800 lbs. to 10 lbs.	1.20
Under 10 lbs.	1.25

(3) *Premiums for crushing.* The standard crushed size for air dried vanadium pentoxide is powdered, and standard crushed sizes for fused vanadium pentoxide are ¾" X down, ½" X down and ¼" X down. Premiums per pound of V_2O_5 contained may be added to the above base prices for crushing or grinding to smaller sizes as follows:

Quantities	8 mesh X down	30 mesh X down
Ton lots	$0.015	$0.0175
Less than tons down to 200 lbs	.02	.03
Less than 200 lbs	.03	.04

(c) *Other vanadium products.* The maximum prices for the vanadium products listed below shall be, except as otherwise provided in section 11, (1) the highest prices charged for such products by a seller on a delivery made during January, February or March 1942 to a purchaser of the same class, or (2) if the seller cannot make this determination on the basis of a delivery, the highest prices which the seller quoted for delivery of such products during January, February or March 1942 to a purchaser of the same class.

If the seller cannot determine his maximum prices under either of the above provisions, his maximum price shall be subject to the approval of the Administrator, as set forth in section 7 of this regulation.

The following vanadium products are covered by this paragraph:

Vanadium metal
Vanadium metal powder
Vanadium silicide
Vanadium chloride
Sodium ortho vanadate
Ammonium meta vanadate
Other vanadium alloys and compounds which are consumed principally by the metallurgical industry

(d) *Vanadium ores and concentrates.* Vanadium ores and concentrates are exempt from the provisions of this regulation and the General Maximum Price Regulation.

N B For general terms see section 8 below.

SEC. 4. *Maximum prices for cobalt.*—(a) *Cobalt metal sold to a metallurgical user.* The maximum price per pound of cobalt metal containing a minimum of 97% cobalt, packed, f o b producer's plant, with freight allowed to destination on quantities of 25 pounds or more up to but not in excess of the freight rate from producer's plant to Chicago, Illinois, shall be as follows when sold to a metallurgical user:

	Contract	Spot
Keg, 500 to 580 lbs	$1.80	$1.85
Cases, 100 lbs	1.92	1.97
Less than 100 lbs	1.97	2.02

For the purposes of this section "metallurgical user" means a person whose principal use of cobalt metal is in the production of steels, carbides and ferrous or non-ferrous alloys.

(b) *Other cobalt products and cobalt metal sold to other users.* The maximum prices for the cobalt products listed below, and for cobalt metal sold to persons other than metallurgical users shall, be, except as otherwise provided in section 11, (1) the highest prices charged for such products or metal by a seller on a delivery made during January, February or March 1942 to a purchaser of the same class, of (2) if the seller cannot make this determination on the basis of a delivery, the highest prices which the seller quoted for delivery of such products during January, February or March 1942 to a purchase of the same class.

If the seller cannot determine his maximum prices under either of the above provisions, his maximum price shall be subject to the approval of the Administrator, as set forth in section 7 of this regulation.

The following cobalt products are covered by this paragraph:

Cobalt metal fines
Cobalt metal powder
Cobalt oxides
Other alloys and compounds of cobalt which are consumed principally by the metallurgical industry

(c) *Cobalt ores, concentrates and crudes.* Cobalt ores, concentrates and crudes are exempt from the provisions of this regulation and the General Maximum Price Regulation.

N B For general terms see section 8 below.

SEC. 5. *Maximum prices for ferrophosphorus.* (a) The maximum prices for ferrophosphorus shall be determined by using the maximum base prices and premiums, where applicable, set out below:

(1) *Analysis*

	17-19% Grade	25-28% Grade
Phosphorus	Base, 18%, range, 17-19%	Base, 24%, range, 25-28%
Iron	Approx 79%	Approx 70%

(2) *Maximum base prices.* The maximum prices for ferrophosphorus based on the gross weight of the material, f.o.b. producer's plant shall be:

Quantity	17-19% Grade	25-28% Grade
	Per gross ton	Per gross ton
Carload lots, bulk	$68.00	$74.00
Carload lots, packed	63.00	70.00
Less than carload lots down to 3 gross tons, packed	70.00	80.00
3 gross tons to 1 gross ton, packed	81.00	100.00
	Per lb.	Per lb.
1 gross ton down to 500 lbs., packed	.06	.065
500 lbs. down to 100 lbs., packed	.06	.07
Less than 100 lbs., packed	.08	.10

(3) *Premiums.* To the above base prices may be added the following premiums: (1) For crushing to egg size or smaller—$10.00 per gross ton in gross ton lots or over, and $0.005 per pound in less than gross ton lots. (2) For phosphorous content in excess of the base analysis—$3.00 per gross ton on gross ton lots or over for each 1% of phosphorus, fractions prorated.

(4) *Penalty.* For phosphorus content lower than the base analysis deduct $3.00 per gross ton on gross ton lots or over for each 1% of phosphorus, fraction prorated.

Sec. 6. *Maximum prices for certain special alloys and metals.*—(a) *Siminal.* The maximum prices for siminal shall be determined by using the maximum base prices and premiums, where applicable, set out below:

(1) Analysis:

	Percent Approximate
Silicon	30
Manganese	30
Aluminum	30
Balance being principally iron	

(2) *Maximum base contract prices.* The maximum prices per pound of material, gross weight, f. o. b. producer's plant with freight allowed to destination, up to but not in excess of the freight rate from producer's plant to St. Louis, Missouri, shall be:

	Lump	3" X D	1" X D	¼" X D	¼" X D	8M X D	28M X D
Carload (bulk)	$0.0880	$0.0880	$0.0880	$0.0873	$0.0873	$0.1030	$0.1030
Ton lots (packed 80 gal. barrels)	.1030	.1035	.1035	.1030	.1030	.1075	.1430
Less than ton lots (packed 80 gal. barrels)	.1400	.1400	.1400	.1125	.1125	.1125	.1300

(3) *Premiums.* (i) To the above base prices may be added a premium of $0.005 per pound for spot sales.

(ii) For packing ton lots or less in 25 gal. barrels a premium of $0.0060 per pound may be added.

(b) *Alsifer.* The maximum prices for alsifer shall be determined by using the maximum base prices and premiums, where applicable, set out below:

(1) *Analysis:*

	Percent approximately
Aluminum	20
Silicon	40
Iron	40

(2) *Maximum base contract prices.* The maximum prices per pound of material, gross weight, f. o. b. Suspension Bridge, N. Y. shall be:

Carload lots (bulk or packed)	$0.0750
Ton lots (packed)	.0800
Less than ton lots (packed)	.0850

(3) *Premium.* To the above base prices may be added a premium of $0.0050 per pound for spot sales.

(c) *Calcium metal.* The maximum prices for calcium metal shall be determined by using the maximum base prices and premiums, where applicable, set out below:

(1) *Maximum base contract prices.* The maximum prices per pound of metal, packed, f. o. b. Sault Ste. Marie, Michigan, with freight allowed to Mississippi River points and all the area east of the Mississippi River shall be:

	Casts	Turnings
2,000 pounds or more	$1.80	$1.20
Less than 2,000 lbs.	1.30	1.80

(2) *Premium.* To the above base prices may be added a premium of $0.05 per pound for spot sales.

(d) *Calcium silicon.* The maximum prices for calcium silicon shall be determined by using the maximum base prices and premiums, where applicable, set out below:

(1) *Analysis:*

	Percent
Calcium, approximate	30-35
Silicon, approximate	60-65
Iron, maximum	3.50
or	
Calcium, approximate	28-33
Silicon, approximate	60-65
Iron, maximum	6.00

(2) *Maximum base contract prices.* The maximum prices per pound of material, gross weight, f. o. b. Niagara Falls, N. Y., with freight allowed to destination up to but not in excess of the freight rate from Niagara Falls, N. Y. to St. Louis, Missouri, shall be:

	Lump, 2M X 1"	3" X D	1" X D	¼" X D	¼" X D	8M X D	28M X D
Carload lots	$0.1300	$0.1400	$0.1400	$0.1400	$0.1400	$0.1400	$0.1400
Gross ton lots	.1400	.1400	.1400	.1400	.1400	.1400	.1400
200 lbs. to gross ton	.1400	.1400	.1400	.1400	.1400	.1400	.1400
Less than 200 lbs.	.1400	.1700	.1700	.1700	.1700	.1700	.1700

(3) *Premium.* To the above base prices may be added a premium of $0.0025 per pound for spot sales.

(e) *Calcium-manganese-silicon.* The maximum prices for calcium-manganese-silicon shall be determined by using the maximum base prices and premiums, where applicable, set out below:

(1) *Analysis:*

	Percent Range
Calcium	18-20
Manganese	14-18
Silicon	60-65
Balance principally iron	

(2) *Maximum base contract prices.* The maximum prices per pound of material, gross weight, f. o. b. Niagara Falls, N. Y., with freight allowed to destination up to but not in excess of the freight rate from Niagara Falls, N. Y. to St. Louis, Mo., shall be:

	Lump, 2M X 1"	3" X D
Carload lots	$0.1400	$0.1400
Gross ton lots	.1400	.1400
200 lbs. up to gross ton	.1700	.1700
Less than 200 lbs.	.1700	.1700

(3) *Premium.* To the above base prices may be added a premium of $0.0025 per pound for spot sales.

(f) *Other special alloys and metals.* The maximum prices for the special alloys and metals listed below shall be, except as otherwise provided in section 11, (1) the highest prices charged for such products by a seller on a delivery made during January, February or March 1942 to a purchaser of the same class, or (2) if the seller cannot make this determination on the basis of a delivery, the highest prices which the seller quoted for delivery of such products during January, February or March 1942 to a purchaser of the same class.

If the seller cannot determine his maximum prices under either of the above provisions, his maximum price shall be subject to the approval of the Administrator, as set forth in section 7 of this regulation.

The following products are covered by this paragraph:

Borosil	Manganese boron
Bortam	Silicas
Ferroboron	8 Ivas
Ferromanganese-silicon	SMZ alloy
Grainal alloys	

Other alloys and compounds consumed principally by the metallurgical industry in which boron, calcium, chromium, manga-

nese phosphorus or silicon accounts for a larger part of the material cost than any other constituent element. This provision however does not apply to any material covered by any other section of this regulation or by Revised Maximum Price Regulation 138 (Ferromanganese and Manganese Alloys and Metals), Maximum Price Regulation 448 (Ferrosilicon and Silicon Metal) and Maximum Price Regulation 407 (Ferrochromium and Chromium Metal).

N B For general terms see section 8 below

SEC. 7. *Maximum prices for types, grades and sizes of alloys and metals for which maximum prices cannot be established by sections 1 through 6 of this regulation.* If the seller of any type, grade or size of alloy or metal listed in this regulation cannot determine his maximum prices under the provisions of sections 1 through 6, inclusive, he shall submit his proposed maximum price for the approval of the Administrator. This price and an analysis of the material shall be reported within 15 days after delivery and pending approval such price may be paid and received subject to adjustment between the parties if the price is disapproved. A price once reported and approved need not thereafter be reported by the same seller.

Reports called for by this provision shall be made by letter addressed to the Non-Perrous Metals Branch, Office of Price Administration, Washington, D. C. In approving or disapproving a price submitted for approval, the Office of Price Administration will consider whether the price submitted is in line with other maximum prices established by this regulation.

SEC. 8. *Terms of general applicability.*—(a) *Credit.* No charge shall be made for extension of credit when payment is made within 30 days of date of invoice.

(b) *No spot premiums on sales to the United States or any agency thereof.* No spot premium may be added on any sale or delivery to the United States or any agency thereof of tungsten, molybdenum, vanadium, cobalt or any of the other alloys or metals covered by this regulation.

SEC. 9. *Exemption of sales for laboratory and experimental purposes.* Sales of tungsten, molybdenum, vanadium, cobalt, and the other alloys and metals covered by this regulation shall be exempt from this regulation and the General Maximum Price Regulation when such sales are made for laboratory and experimental uses. For the purpose of this section "sales for laboratory and experimental purposes" means sales of relatively small amounts used for testing, research, sampling or experimental use and covers alloys, metals and compounds already being produced commercially, as well as those produced experimentally and in the process of development.

SEC. 10. *Sales by independent warehousemen.* The maximum price at which an independent warehouseman may sell tungsten, molybdenum, vanadium, cobalt or any of the other alloys or metals covered by this regulation shall be the maximum price at which the quantity and grade sold by him could be sold by a producer for delivery to his warehouse, plus the following differentials or premiums:

	Percent
500 lbs. and over	10
Less than 500 lbs. down to 100 lbs.	15
100 lbs. and less	20

The maximum price for independent warehousemen is f. o. b. warehouse with no allowance for freight.

For the purpose of this section "independent warehouseman" means a private seller, other than a manufacturer of tungsten, molybdenum, vanadium, cobalt and other alloys and metals or a subsidiary or affiliate thereof, who renders the service of maintaining a stock of tungsten, molybdenum, vanadium, cobalt, or other alloys or metals for the convenience of buyers who desire to purchase small quantities or to receive quick delivery.

SEC. 11. *Maximum prices for certain sellers.* (a) Cleveland Tungsten, Inc., Cleveland, Ohio, may sell or deliver, and any person may buy or receive from Cleveland Tungsten, Inc. tungsten metal powder, containing a minimum of 99.7% tungsten and a maximum of .20% alkalis and .02% molybdenum, at a price not in excess of $5.40 per pound f. o. b. seller's plant.

(b) The S. W. Shattuck Chemical Company of Chicago, Illinois, may sell and deliver, and any person may buy and receive in the course of trade or business from the S. W. Shattuck Chemical Company, technical grade tungstic oxide (WO_3) at a price not in excess of $2.58 per pound delivered.

SEC. 12. *Applicability of regulation.*—(a) *Geographical.* The maximum prices established by this regulation shall apply to the forty-eight states and the District of Columbia.

(b) *Export sales.* The maximum price at which any person may export tungsten, molybdenum, vanadium, cobalt or any other alloy or metal covered by this regulation shall be determined in accordance with the provisions of the Second Revised Maximum Export Regulation," issued by the Office of Price Administration.

(c) *Import sales and sales of imported tungsten, molybdenum, vanadium, cobalt, and other alloys and metals.* Neither this regulation nor the General Maximum Price Regulation shall apply to the importation of tungsten, molybdenum, vanadium, cobalt, and the other alloys and metals listed in this regulation. This regulation shall apply, however, to the sale of all tungsten, molybdenum, vanadium, cobalt, and other alloys and metals listed in this regulation after they shall have been imported into the forty-eight states and the District of Columbia.

(d) *Relation to General Maximum Price Regulation.* This regulation supersedes the General Maximum Price Regulation as to sales and deliveries which are covered by, or expressly excluded from, this regulation.

SEC. 13. *Records and reports.* (a) On and after November 8, 1943, every person making a purchase or sale of tungsten, molybdenum, vanadium, cobalt, and other alloys and metals covered by this regulation shall keep for inspection by the Office of Price Administration, for so long as the Emergency Price Control Act of 1942 remains in effect, complete and accurate records of each such purchase or sale showing (1) the date thereof, (2) the name and address of the buyer and the seller, (3) the quantity and analysis of each grade and size purchased or sold, (4) the date of delivery of each shipment, and (5) the price paid or received. The invoice or any other customary record containing the required data may be retained for the purposes of this section.

(b) Persons subject to this regulation shall submit such reports, subject to the approval of the Bureau of the Budget in accordance with the Federal Reports Act of 1942, as the Office of Price Administration may from time to time require.

SEC. 14. *Adjustable pricing.* Any person may agree to sell at a price which can be increased up to the maximum price in effect at the time of delivery, but no person may, unless authorized by the Office of Price Administration, deliver or agree to deliver at prices to be adjusted upward in accordance with action taken by the Office of Price Administration after delivery. Such authorization may be given when a request for a change in the applicable maximum price is pending, but only if the authorization is necessary to promote distribution or production and if it will not interfere with the purposes of the Emergency Price Control Act of 1942 as amended. The authorization may be given by the Administrator or by any official of the Office of Price Administration to whom the authority to grant such authorization has been delegated. The authorization will be given by order, except that it may be given by letter or telegram when the contemplated revision will be the granting of an individual application for adjustment.

SEC. 15. *Applications for adjustment.*—(a) *When available.* The Office of Price Administration will adjust any maximum price established by this regulation whenever it finds, from an application for adjustment or on its own motion, that the price impedes or threatens to impede any seller's production of any commodity and that the seller's production is necessary for essential war or civilian purposes.

(b) *Considerations.* In considering whether production is impeded or threatened, among other factors, consideration will be given to (1) costs of

[illegible] OPA "[illegible]" [illegible]

[illegible] 8864 10782
[illegible] 8181 10579
[illegible] 9075 8810 9024

[illegible] 4132 5087 7662 5987 9998
[illegible] 3096 3449 4347 4486 4724 4848 4974 [illegible] 8662 8513 9025 9901 11985 13724

and revenue from the commodity in question, (2) the relative importance of the commodity in the seller's overall business, (3) the profitableness of the seller's business, and (4) any special facts which the seller calls to the attention of the Office of Price Administration.

(c) *Amount of adjustment.* Increase in price will be permitted in an amount which the Office of Price Administration considers sufficient to avoid the impeding of production or the threat of impeding production.

(d) *Form of application.* An original and one copy of an application for adjustment must be filed with the Office of Price Administration, Washington, D.C. It is suggested that, before filing an application for adjustment under the provisions of this section, the seller obtain from the Non-Ferrous Metals Branch, Office of Price Administration, Washington, D.C., a statement of the specific information that will be necessary in order that his application may receive prompt action.

Sec. 16. *Petitions for amendment.* Any person seeking an amendment of any provision of this regulation may file a petition for amendment in accordance with the provisions of the Revised Procedural Regulation No. 1,* issued by the Office of Price Administration.

Sec. 17. *Prohibition against dealing in tungsten, molybdenum, vanadium, cobalt, ferrophosphorus and other alloys and metals at prices above maximum.* (a) On and after November 8, 1943, regardless of any contract, agreement, or other obligation, no person shall sell or deliver tungsten, molybdenum, vanadium, cobalt, ferrophosphorus or any other alloys or metals covered by this regulation and no person in the course of trade or business shall buy or receive tungsten, molybdenum, vanadium, cobalt, ferrophosphorus or any other alloys or metals covered by this regulation at prices higher than the maximum prices set out in this regulation; and no person shall agree, offer, solicit, or attempt to do any of the foregoing.

(b) Any practice or device which is an attempt to get the effect of a price higher than the maximum without actually charging a higher price is prohibited and is as much a violation of this regulation as an outright excessive price. This applies to devices involving commissions, services, transportation arrangements, premiums, special privileges, tying-agreements, trade understandings and the like.

(c) Prices lower than those set out in this regulation may be charged, demanded, paid or offered.

Sec. 18. *Enforcement.* (a) Persons violating any provision of this regulation are subject to the criminal penalties, civil enforcement actions and suits for treble damages provided for by the Emergency Price Control Act of 1942, as amended.

(b) No war procurement agency, nor any contracting or paying finance office thereof, shall be subject to any liability, civil or criminal, imposed by this regulation or the Emergency Price Control Act of 1942, as amended. "War procurement agency" includes the War Department, the Navy Department, the United States Maritime Commission and the Lend-Lease Section in the Procurement Division of the Treasury Department, or any agency of the foregoing.

Sec. 19. *Licensing.* The provisions of Licensing Order No. 1, licensing all persons who make sales under price control, are applicable to all sellers subject to this regulation. A seller's license may be suspended for violation of the license or of any one or more maximum price regulations. A person whose license is suspended may not, during the period of suspension, make any sale for which his license has been suspended.

Sec. 20. *Definitions.* (a) When used in this regulation the term:

(1) "Person" includes an individual, corporation, partnership, association, or any other organized group of persons, or legal successor or representative of any of the foregoing, and includes the United States or any agency thereof, or any other government or any of its political subdivisions, or any agency of any of the foregoing.

(2) "Purchaser of the same class" refers to the practice adopted by the seller in setting different prices for sales to different purchasers or kinds of purchasers or for purchasers located in different areas or for different quantities or grades or under different conditions of sale.

(3) "Contract price" means that price determined by a written contract calling for delivery or deliveries of an estimated amount at some future date or dates within a specified period of time, not less than three months.

(4) "Gross ton" means 2,240 pounds.

(5) "Spot price" means the price for a single or isolated sale for delivery within three months.

(6) "Carload lots" means not less than the minimum quantity which may be shipped by the seller to the particular buyer at the carload tariff rate.

(7) "Freight" means the charge for transportation not in excess of the charge made by railroads and includes the federal tax on such railroad transportation charge.

(8) "Tungsten" means any one of the materials which are specifically listed in section 1 and any other alloy or compound of tungsten which is consumed principally by the metallurgical industry.

(9) "Molybdenum" means any one of the materials which are specifically listed in section 2 and any other alloy or compound of molybdenum which is consumed principally by the metallurgical industry.

(10) "Vanadium" means any one of the materials which are specifically listed in section 3 and any other alloy or compound of vanadium which is consumed by the metallurgical industry.

(11) "Cobalt" means any one of the materials which are specifically listed in section 4 and any other alloy or compound of cobalt which is consumed principally by the metallurgical industry.

(12) "Ferrophosphorus" means an alloy of phosphorus as described in section 5.

(13) "Other alloys and metals" means any of the materials covered in section 6.

(14) "Alloy of compound of a particular element" (as tungsten) means an alloy or compound, consumed principally by the metallurgical industry, in which the particular element accounts for a larger part of the material cost than any other constituent element.

(15) "Metallurgical industry" means the group of industries which produce metals, steels, carbides and ferrous and non-ferrous alloys.

(b) Unless the context otherwise requires, the definitions set forth in section 302 of the Emergency Price Control Act of 1942 shall apply to other terms used in this regulation.

This regulation shall become effective November 8, 1943.

NOTE: All reporting and record-keeping requirements of this regulation have been approved by the Bureau of the Budget in accordance with the Federal Reports Act of 1942.

Issued this 2d day of November 1943.

GEORGE J. BURKE,
Acting Administrator.

*7 F.R. 8961, 8 F.R. 3313, 3833, 6173, 11806.

DEFENDANT U'S EXHIBIT "5-E"

Invoice

CONTINENTAL ORE COMPANY
500 Fifth Avenue
New York 18, N. Y.

No. 7419

Date: May 24, 1946

Sold to: Sulzer Brothers Ltd.
Winterthur, Switzerland

Shipped to: A. Sonderegger
[Illegible]
Zurich, Switzerland

Shipped via S. S. Henry D. Brown from New York to Antwerp
Terms: Net Cash

10 drums 204.5 lbs. Van-Ex containing:

100 lbs. Metallic Vanadium @ $2.40 lb. FOB N.Y.	$240.00
Plus Minimum Freight Charge	5.75
Insurance Coverage	2.50
	$248.25

Weights:

Gross	223=	12 oz.
Tare	19=	6 oz.
Net	204=	6 oz.

No. 47008
Def. Ex. 5F
FILED JUN 1 1 1958
J. CALBRAITH, Clerk
BY Wesley DEPUTY CLERK
D 1063

CONTINENTAL ORE COMPANY
500 FIFTH AVENUE
NEW YORK 18, N.Y.

March 21, 1946

Electro Metallurgical Sales Corp.
30 East 42nd Street
New York 17, N. Y.

Att: Mr. W. E. Vogt

Re: Vanadium Pentoxide

Gentlemen:

As a trial lot we would very much appreciate receiving from you

100 lbs. of metallic V contained in V2O5 fused

packed in steel ~~cans~~ DRUMS, each containing exactly 10 lbs. metallic V in the form of V2O5

Some time ago you advised us that for such special packing you would ask a premium of $0.065 per pound of V2O5 (for quantities below 2000 lbs.) which would have to be added to the contract price of $1.10 per pound of V2O5.

We would very much like to have these te~~ cans~~ DRUMS placed in a box, and will give you shipping instructions as soon as you tell us when the material is expected to be ready.

As mentioned before, this is a trial lot, and if it works out as we hope it will, we can follow this up with larger and regular orders.

Looking forward to hearing from you at your early convenience,

Very truly yours,

CONTINENTAL ORE COMPANY

Manager

MWolf:lp

New straight order on Niagara Chemical orders only + we will furnish consignee + complete shipping info.

3/27

RECEIVED
ACKNOWLEDGED

ELECTRO METALLURGICAL SALES CORPORATIO

Unit of Union Carbide and Carbon Corporation

Carbide and Carbon Building UCC 30 East 42nd Street, New York 17, N. Y.

"ELECTROMET" FERRO-ALLOYS, METALS, AND OTHER METALLURGICAL PRODUCTS

OFFICES
Carbide and Carbon Building, New York 17, N. Y.
Union Commerce Building, Cleveland 14, Ohio
Carbide and Carbon Building, Chicago 1, Ill.
Adams Grant Building, San Francisco 4, Calif.
Brown-Marx Building, Birmingham 3, Ala.
General Motors Building, Detroit 2, Mich.
Oliver Building, Pittsburgh 22, Pa.

D's 11 EX. 5

FILED JUN 1 1 1958

CLARENCE R. Clerk

BY Deputy Clerk

September 10, 19

ELECTRO METALLURGICAL SALES CORPORATION agrees to sell

Continental Ore Company of New York, N. Y.

agrees to buy Buyer's domestic manufacturing requirements

of Vanadium Oxide

for delivery in as nearly equal monthly quantities as practicable at the respective prices, terms, and conditio forth in this agreement, which shall continue until terminated by either party giving not less than six (6) m prior written notice to the other party.

The prices and terms of payment for the standard grade or grades and sizes of this material are sho the schedule hereto attached and made a part of this agreement.

The prices which are in effect may be revised by the Seller at the beginning of any calendar quarte by giving not less than fifteen (15) days prior written notice to the Buyer. Such revised prices shall become tive at the beginning of such calendar quarter year and shall remain in effect until again revised in the manner inbefore provided. If any such revised prices are not acceptable to the Buyer, the Buyer may cancel future t contracted for hereunder to which such revised prices apply by giving written notice to the Seller not less th (10) days prior to the beginning of such calendar quarter year.

Deliveries are subject to strikes, riots, war, governmental acts and regulations, fires, explosions, acc acts of God, delays in procuring sufficient or suitable raw materials, delays of carriers, curtailment of or fail obtaining sufficient electrical power, and other similar or dissimilar contingencies affecting the Seller or the ma turer of the material and beyond its reasonable control.

During any time in which the Seller is not satisfied with the Buyer's financial responsibility, the Selle change the terms of payment or suspend deliveries.

The Buyer shall pay all existing and future taxes imposed *by reason of sale or delivery* under this ment.

The benefits and obligations of this agreement shall extend to the successors and assigns of the res parties.

This agreement shall not be effective until approved by an officer or manager of the Seller and when proved shall supersede all prior agreements covering the same material. No change in or addition to the hereof shall be made unless approved in writing by an officer or manager of the Seller, and an authorized sentative of the Buyer.

ELECTRO METALLURGICAL SALES CORPORAT

ACCEPTED:

CONTINENTAL ORE COMPANY

BY

BY

APPROVED:

DEFENDANT U'S EXHIBIT "5-J"

Nisley & Wilson Vanadium Mill
Gateway, Colorado

October 15, 1943

Continental Ores Company
500 Fifth Avenue
New York City, New York

Dear Mr. Leir:

Some time ago we were corresponding with you concerning the possibility of making a flake material which would be more desirable than crushed material. At the time we were extremely pressed under the Metals Reserve operation and weren't able to do anything about it, equipment being very scarce.

A few days ago we completed a flaking machine and put it into operation. The material seems to us to be of a very desirable nature, for as far as we are concerned, it can be sacked without further treatment. If it is not fine enough for your work, we could if necessary run the thin flakes thru a small set of rollers and make it somewhat finer than it is at the present time.

We are sending you a small sample of the material we are now making.

Concerning production we are operating under the same arrangements with M.R.C. However we are treating somewhat lower grade ore than we used to. Our output has been running in the neighborhood of 11,000 to 12,000 lbs. of Vanadic Acid

Defendant U's Exhibit "5-J"—(Continued)

monthly. The grade of the product has been extremely good, last months average being 87.47% V_2O_5.

We would like to hear from you concerning your reaction to the flake material. I might add that we are turning out this product commercially, in fact all V_2O_5 being produced is of this nature. Perhaps this change will be of value to us both after the war.

Sincerely yours,

NISLEY & WILSON,
/s/ FRANK NISLEY, JR.

P.S.: I notice in checking over our files that we have a letter dated July 8 from Mr. Wolf in which he asked us for a 25 lb. sack of ore. I can find no record or having ever sent the material nor do I remember having seen the letter before. I'm extremely sorry if the ore hasn't been sent and if it would still be of value to you we would gladly send it to you.

/s/ FRANK.

October 28, 1943

Mr. Frank Nisley, Jr.
Nisley & Wilson Vanadium Mill
Gateway, Colorado

Re: Vanadic Acid in Flakes

Dear Mr. Nisley:

We refer to our letter of October 25.

Defendant U's Exhibit "5-J"—(Continued)

Your sample has just arrived, and we really want to congratulate you on the fine job you are doing, because these flakes are just what we like best.

From your letter of October 15, we note that you are making 11,000 to 12,000 pounds of vanadic acid per month at the present time.

Please let us know what your situation is with regard to crude ore, that is, whether you have some of your own or whether you are dependent upon the U. S. Vanadium Corp.

We would also like to know whether you believe that after the war you will be in a position to either operate your own mines or to buy ore from independent miners.

The war may be over in the not too distant future, and we would like to obtain an idea as to what your situation would be at that time. There are already signs of abundance of basic ores and minerals, but we are anxious to cooperate with you and keep your mill running in peacetime.

Please let us know at the same time when your present contract with the Metals Reserve Company expires.

With kind personal regards.

Very truly yours,

CONTINENTAL ORE COMPANY,
HENRY J. LEIR.

hjl/sk

DEFENDANT U'S EXHIBIT "5-K"

July 3, 1939

The Vitro Manufacturing Company
Corliss Station
Pittsburgh, Pa.

Gentlemen:

I refer to my telephone conversation with your President, Mr. Fleg, following your offer of June 13.

I hereby inform you that I am connected now with the above Company which will handle the business for the Luxemburg firm on this side of the ocean. I hope it will be possible to come now to some substantial business.

I telegraphed you today as follows:

"Please book definitely two lots Vanadic Acid three thousand lbs. each stop hope you can ship first lot promptly second lot July earliest,"

and shall be glad to have your confirmation for the following business:

Merchandise: Your Vanadic Acid, gas-dried, containing a min of 83% V_2O_5.

Quantity: 6,000 lbs.

Price: $1.25 per lb. of V_2O_5 content.

Delivery: F.A.S. New York.

Time of Shipment: 3,000 lbs. immediately; 3,000 lbs. earliest afterwards.

Sampling/Weighing/Analysis: By Messrs Ledoux & Co., the cost to be equally divided between us.

Payments: Against Documents.

Defendant U's Exhibit "5-K"—(Continued)

As the analysis of Messrs. Ledoux & Co. generally takes from 7-10 days, we propose you the following:

We pay you your provisional invoice, made out on the basis of 83% against receipt of the merchandise, so that we can ship it over to Europe without delay.

The settlement of any balance will be effected as soon as the certificates of Ledoux are in our hands.

We shall be very much obliged to you if you can ship the 3,000 lbs. directly to Messrs. Ledoux & Co., and we will hand them our cheque made out to your order.

We shall be glad to hear from you soon, and remain,

Yours very truly,

CONTINENTAL ORE CORPORATION
HENRY JOHN LEIPZIGER.

HJL:LL

July 5, 1939

The Vitro Manufacturing Co.
Corliss Station
Pittsburgh, Pa.

Attention: Mr. E. M. Fleck, President

Gentlemen,

Your letter dated July 3, crossed ours of the same date.

We agree with the sampling by the Pittsburgh Testing Laboratory, and as soon as this sampling has been done please forward the first lot of 3000 lbs. to the following address:

Defendant U's Exhibit "5-K"—(Continued)

Messrs. Transhipp, Inc.,
8-10 Bridge Street,
New York City,

whom in exchange we shall hand our cheque on the provisional basis of 83%, cheque made out to your order directly.

We further agree with weighing, respectively control checking of weighing by the Pittsburgh Testing Laboratory if this suits you better.

In any case we will be very much obliged to you, if you will forward those 3000 lbs. on receipt of this letter because we want to ship this first lot next week already.

Thanking you in advance for the kind attention you will give this matter, we remain,

Yours very truly,

CONTINENTAL ORE CORPORATION,
HENRY JOHN LEIPZIGER.

HJL/LL

July 17, 1939

The Vitro Manufacturing Co.
Corliss Station
Pittsburgh, Pa.

Attention: Mr. J. Harvey Schmitt

Gentlemen,

We just receive cable from our friends on the other side that they want sampling and testing done by Ledoux & Co. We assume that this is just as

Defendant U's Exhibit "5-K"—(Continued)

agreeable to you, and would only ask you to kindly confirm that your next shipment of 3000 lbs. will be sampled and tested also with regard to moisture by Messrs. Ledoux in New York.

Thanking you in advance,

Yours very truly,

CONTINENTAL ORE CORPORATION,
PAUL M. HIRSCHLAND.

The Vitro Manufacturing Co.
Corliss Station
Pittsburgh, Pa.

July 18, 1939

Continental Ore Corporation
500 Fifth Avenue
New York, New York

Attn: Mr. Paul M. Hirschland

Gentlemen:

We have your letter of July 17 in regard to the methods of testing Vanadic Acid.

We note that you wish to have the second lot, consisting of 3,000 pounds, now in the course of preparation, sampled and analyzed by Ledoux & Company. You are probably not aware of the fact that in order to have it sampled by Ledoux we must request that a representative comes from New York to Pittsburgh to do so. This involves *considerable

*Pen underscore.

Defendant U's Exhibit "5-K"—(Continued)

expense, amounting to possibly $60.00-$70.00. If it is agreeable to you to bear this expense, we will be glad to have Ledoux' representative come to Pittsburgh. It is for reason of economy that we have, in the past, had the sampling done by the Pittsburgh Testing Laboratory, and we only charged you for half of the cost of this work. This was only a matter of a few dollars.

If your clients still insist on Ledoux' sampling from now on, we will do so only if you agree to pay this additional expense. Otherwise, we will be obliged to cancel the order.

Kindly advise us of your final decision in this matter and oblige.

Very truly yours,

THE VITRO MANUFACTURING COMPANY,
/s/ A. J. STROD,
A. J. Strod, Sales Mgr.

AJS:AS

July 19, 1939

The Vitro Manufacturing Co.
Corliss Station
Pittsburgh, Pa.

Att: Mr. A. J. Strod

Gentlemen:

We are in receipt of your letter of July 18 regarding testing method of Vanadic Acid.

We have passed along immediately to our people

Defendant U's Exhibit "5-K"—(Continued)

on the other side your information that you require the coming over to Pittsburgh of a representative of Ledoux & Co. for sampling purposes, and that you would not participate in bearing such costs.

We also noted that you will be obliged to cancel the order, unless the additional charges are paid on our side, or, unless of course the sampling and testing will be done as in the case of the previous shipment.

We regret to say that for the moment we cannot do anything except wait for the reply which we expect in about two weeks. We hope, however, that we will be able to come to an agreement, and remain in the meantime,

Yours very truly,

CONTINENTAL ORE CORPORATION,
PAUL M. HIRSCHLAND.

The Vitro Manufacturing Co.
Corliss Station
Pittsburgh, Pa.

August 18, 1939

Continental Ore Corporation
500 Fifth Avenue
New York, New York

Attention: Mr. Paul M. Hirschland

Gentlemen:

Please refer to your letter of July 19 in regard to a shipment of Vanadic Acid covered by your

Defendant U's Exhibit "5-K"—(Continued)

contract. According to your letter, we were to be advised by you early this month whether or not the shipment is to be expedited as per conditions of the contract.

So far, we have not received any notice from you, and are holding the material pending your shipping instructions. We would like to move the shipment before the end of the month, and would ask you to kindly let us know as quickly as possible about the method of sampling of the lot in question.

Thanking you for your prompt attention, we are,

Yours very truly,

THE VITRO MANUFACTURING CO.,
/s/ A. J. STROD,
A. J. Strod, Sales Manager.

AJS:AH

August 21, 1939

The Vitro Manufacturing Co.
Corliss Station
Pittsburgh, Pa.

Attention: Mr. A. J. Strod

Gentlemen:

We have your letter of August 18 and also received a reply from Europe.

As we wrote you in our letter of July 19 we passed to our European friends the sampling—and analysing—conditions that you mentioned in your letter of July 18 to us, and also that you will be obliged to cancel the order unless those conditions are accepted.

Defendant U's Exhibit "5-K"—(Continued)

We hear now from the other side that they cannot see why you do not accept Ledoux, except under additional expenses which they are not prepared to incur, particularly since differences in the analysis results are apparent, on your last shipment.

As it seems to us under the circumstances an agreement on the basis of your letter of July 18 cannot be reached.

Accordingly we accept your offer to cancel the order.

Yours very truly,

CONTINENTAL ORE CORPORATION,
PAUL M. HIRSCHLAND.

The Vitro Manufacturing Co.
Corliss Station
Pittsburgh, Pa.
August 22, 1939

Continental Ore Corporation
500 Fifth Avenue
New York, New York

Attn: Mr. Paul M. Hirschland

Gentlemen:

We are in receipt of your letter of August 21 and regret to note that your clients abroad do not wish to accept the analysis and sampling conditions agreed upon between us.

Under the date of July 3 you wired us, requesting a definite booking of two lots of Vanadic Acid,

Defendant U's Exhibit "5-K"—(Continued)

each of 3,000 pounds, and confirmed the purchase by letter on July 3. In a letter dated July 5 you also expressly agreed that the weighing and sampling could be done by the Pittsburgh Testing Laboratory. After these definite conditions of sale were mutually accepted and the two lots prepared by us, you now intend to cancel the second lot for what appears to us no valid or just reason.

Frankly, we are very much disappointed over the news you have communicated at this late date as we have kept the shipment for over a month and lost a sales possibility in other directions.

In order to find some manner of settling this matter, we again reviewed our files—particularly, your contract of July 3. There, under the heading "Sampling, Weighing, and Analysis", we found that you did originally expect that all these operations would be done by Ledoux & Company, with the costs evenly divided between us. Although this clause was later modified, we will accept the original instructions in order to fully satisfy your clients. Therefore, if agreeable to you, we will have a representative of Ledoux & Company come to Pittsburgh and promptly sample the second 3000-pound lot which we are still holding.

As to a difference in analyses, we assure you that no two analyses made by different parties will check exactly. An allowance should always be made for the human element and a possible slight deviation in the results obtained.

Defendant U's Exhibit "5-K"—(Continued)

In closing, we wish to add that it may prove to your advantage in the future to have available an independent source of supply for Vanadic Acid.

We will appreciate having your final decision in this matter at the earliest possible date.

Very truly yours,

THE VITRO MANUFACTURING COMPANY,

/s/ A. J. STROD,

A. J. Strod, Sales Manager.

AJS:AS

August 23, 1939

The Vitro Manufacturing Co.
Corliss Station
Pittsburgh, Pa.

Attention: Mr. A. J. Strod

Gentlemen:

We have your letter of August 22 and noted its contents.

We appreciate your new proposal to reach an agreement and we have today written accordingly to Europe by air-mail. You will realize that we are in a difficult position, because we passed along to our friends your conditions contained in your letter of July 18. We can only repeat that in that letter you declared that if our clients continued insisting on Ledoux's sampling you would only agree provided we paid the additional expenses, and that you would be obliged to cancel the contract otherwise.

Defendant U's Exhibit "5-K"—(Continued)

To all this we got the reply that your proposals are not acceptable, and that they accept your cancellation accordingly.

Nevertheless we naturally, and very gladly, informed our friends today and we will communicate with you immediately upon reply from them to your new offer of yesterday.

We remain until then,

Yours very truly,

CONTINENTAL ORE CORPORATION,
PAUL M. HIRSCHLAND.

August 28, 1939

The Vitro Manufacturing Co.
Corliss Station
Pittsburgh, Pa.
Attention: Mr. A. J. Strod

Gentlemen:

Referring to our letter of August 23 we wish to advise you that we received cable today from our friends in reply to our air-mail letter of August 23. saying that they have made provision for their requirements elsewhere.

We regret that an agreement on the basis of your proposal of August 22 cannot be reached, but we hope that the inconvenience caused to you and us will be made up for soon by some new business.

Yours very truly,

CONTINENTAL ORE CORPORATION,
PAUL M. HIRSCHLAND.

2/6 of 8

Exhibit No. 57

JUN 20 1958

MANHATTAN ENGINEERS DISTRICT
USEO-WAREHOUSE, GRAND JUNCTION, COLORADO
SUMMARY OF MATERIAL BALANCE STATEMENTS
VANADIUM OXIDE (V205) IN POUNDS
DECEMBER 1, 1943 THROUGH FEBRUARY 1956

Date	Lot Numbers	Received From Grand Junction Mill	Returned to Grand Jct. Mill	Shipped to Sioux Ord. Depot	Balance
December 1, 1943 to September 30, 1944	1 thru 72	723,160.46			723,160.
October 1944	73 thru 81	92,930.89			816,091.
November 1944	82 thru 88	71,898.94			887,990.
December 1944	91 thru 98	81,789.74			969,780.
January 1945	99 thru 106	82,072.62	9,625.64		1,042,227.
February 1945	107 thru 115	92,455.03			1,134,682.
March 1945	116 thru 124	92,413.62			1,227,095.
April 1945	125 thru 130	62,012.97			1,289,108.
May 1945	131 thru 139	92,814.27	9,647.44		1,372,275.
June 1945	140 thru 148	92,194.70			1,464,470.
July 1945	149 thru 156	81,614.85	9,802.70		1,536,282.
August 1945	157 thru 169	92,068.36	10,079.75		1,618,270.
September 1945	170 thru 178	112,875.61	10,052.82	1,149,366.46	571,727.
September 1945	Plus 89 & 90				
October 1945	179 thru 185	72,091.28	10,019.24	92,098.05	541,701.
November 1945	186 thru 187	15,266.14		316,327.37	240,640.
February 1946				240,640.01	-0-
		1,857,659.48	59,227.59	1,798,431.89	-0-

Six lots containing 59,227.59 pounds of Vanadium Oxide (V205) were recorded as receipts and later returned to the mill for further processing. When returned to the mill, they were recorded as a shipment rather than a reduction of receipts resulting in an overstatement of receipts in this amount.

Five lots were returned to process and not recorded as a receipt or shipment.

Lots returned to the mill feed lost their identity and the material was included in a new lot when reduced to end product.

187 lot numbers were used and are summarized as follows:

6 lots were recorded as receipts and later returned to the mill.
5 lots were not recorded in receipts and were returned to mill feed.
176 lots transferred to the U. S. Treasury Department and shipped per their instruction to the Sioux Ordnance Depot.
187 Total lots accounted for

EXHIBIT 1

DEFENDANT V'S EXHIBIT "1-A"

November 5, 1941

To: Apex Smelting Company

Attention: Mr. L. Lippa
Re: Vanadium

Thank you for having sent us copies of your correspondence with Blanding.

Following our conversation of last Saturday, we have already contacted several of our customers with regard to

Exothermic Vanadium

and we want to tell you that the reaction is absolutely favorable.

1. We expect to have a very satisfactory price for this new vanadium compound as we call it.

2. We will easily sell whatever quantities we can produce.

We see from your correspondence with Blanding that Mr. Milenski is going to visit you around November 10th. He is probably on his way to the East, and we must do everything to prevent him from dealing with other parties.

We think you should offer him $1.05, delivered Chicago "until further notice", and tell him that if his material proves to be reliable in quality, and particularly if he could increase the quantities, you will consider going up to $1.10.

As a matter of fact, our calculation for the exothermic vanadium is already based upon the $1.10

Defendant V's Exhibit "1-A"—(Continued)

price, delivered Chicago, as you can see from the following figures:

$1.10 per pound V_2O_5	178
—$1.958 per lb. V	
0.042 Canning	
$2.000	
.10 Aluminum	
$2.10	

The prices we offered, dependent upon the customer, were between $2.30 and $2.35, and we feel pretty certain that we can get them.

Therefore, you can see for yourself that we should go up to $1.10 if necessary, in order to secure the material for ourselves, and as much material as possible.

If Blanding will start to give us their entire output now, they certainly cannot switch in 3 months time, to other consumers, because of the contracts which will be made from now until the end of the year.

Please be so kind as to confirm receipt of this letter, so that we see that it is in your hands before you see Mr. Milenski.

CONTINENTAL ORE CORPORATION.

Henry J. Leir/rk

DEFENDANT V'S EXHIBIT "1-D"

July 14, 1938

Societe d'Electro-Chimie de Brignoud
66, Rue de Miromesnil
Paris, France

Gentlemen:

We hereby offer to employ Mr. Henry John Leir as Production Consultant to the Thermit Department which we are establishing pursuant to our agreement of July 1, 1938. His employment shall continue during the term of said agreement and with the understanding that he will devote at least three months in each year to direct work and activity for the Thermit Department in the United States. It shall be his duty to assist us in the purchases, production and sales of the Thermit Department. He shall not, of course, make any commitment on our behalf without express authority from our Board of Directors.

As full compensation for his services during each calendar year, we agree to pay to him an amount equal to 10% of the net receipts, as defined in said agreement, of our Thermit Department during such calendar year. Payment of this compensation will be made in lawful money of the United States within forty-five days after the close of each calendar year. Remittance shall be by Chicago or New York draft, subject, however, to all applicable laws of the United States or the State of Illinois relating to the withholding of taxes at the source.

Defendant V's Exhibit "1-D"—(Continued)

If this arrangement is satisfactory to you and Mr. Leir will you both kindly confirm the same.

Very truly yours,

APEX SMELTING COMPANY,

By .....

WAS:AG

DEFENDANT V'S EXHIBIT "1-E"

Continental Ore Corporation
500 Fifth Avenue
New York

Pocatello, Idaho
July 27, 1940

Mr. Daniel Milenski
Cortez, Colo.

Dear Mr. Milenski:

I refer to our conversation in Grand Junction.

As soon as you will have 1000 lbs. ready, please forward them to the following address:

Apex Smelting Co. 2537 W. Taylor Street, Chicago, Ill.

It is understood, the material must be "fused vanadic acid, with at least 85% V_2O_5 or better". In other words, please make sure, that the 1000 lbs. will be sent only, if the quality is right.

Declare the merchandise with 5 cents per lb. value

Defendant V's Exhibit "1-E"—(Continued)

only, the Continental will take care of the insurance, because otherwise the freight becomes too expensive.

*You are authorized to attach a sight-draft to the B/L for, let us say, 80 cents per lb. of acid shipped, which will be paid by the Apex on arrival.

Final settlement will be done through our office within 14 days after arrival of your material in Chicago and exchange of analysis. Only in case of a difference of more than 0.5% V_2O_5 we should go to some independent laboratory for an analysis of arbitration, the cost of which will then be at the charge of the succumbing party.

Until further notice, we will pay a price of 1.03 Doll. per lb. of V_2O_5 f.o.b. Thompson, less 3%. We undertake to return the bags or barrels, you will use for packing.

I hope, that besides of this domestic business, also some exportation will be possible again in a not to distant future.

Kind regards.

Sincerely yours,

/s/ HENRY JOHN LEIR,
Henry John Leir.

c.c: New York

*[Marginal Note: "No."]

DEFENDANT V'S EXHIBIT "1-F"

Continental Ore Corporation
500 Fifth Avenue
New York

August 10, 1940

Mr. Dan Milenski
Cortez, Colorado

Dear Mr. Milenski

I returned to New York today and remember with pleasure our conversation in Grand Junction.

I was again in Chicago last Thursday, where I saw our friends, the Apex Smelting Company. They expect the arrival of the 1,000 lbs. which you forwarded in the meantime.

However, I do not quite understand why you mentioned to them the price of $1.03 less 3%, when you approached them directly. As a matter of fact these 3% represent our commission and you will admit that we cannot work for nothing.

During the last twelve months our gentlemen were three times in Grand Junction and Blanding respectively, not to mention the numerous trips to Chicago; apart from these traveling expenses there is the cost of correspondence, wires and telephone calls, etc.

The Apex Smelting Company is a very valuable customer for you, as I already explained; they are the only independent producer of Ferro Vanadium in the United States and there is no doubt that they can accept your entire output.

Defendant V's Exhibit "1-F"—(Continued)

There is no sense, therefore, to annoy them and to increase the price, now that you have quoted them at the figure of $1.03 less 3%, corresponding to practically $1.00 f.o.b. Thompson.

We therefore ask you to reserve us our commission of 3% on this price and to send us your statement every month for such commission, due to us.

With regard to further shipments, we hereby authorize you to ship the 3,000 lbs. which you have ready to Chicago, provided you are absolutely sure that the quality will not be inferior to the material we had from the old mill. In other words, it should analyze around 90% V_2O_5, but must contain a guaranteed minimum of 85%.

If you are not absolutely sure about this point, we suggest that you await the analysis of Apex for the first shipment of 1,000 lbs., which should be available very shortly.

We have arranged the following procedure for the analysis with Apex:

As soon as a shipment arrives in Chicago Apex will sample and test it, and will send you a sealed sample bottle of the shipment and another sealed bottle to ourselves.

You will send us the result of your analysis and they will do likewise, so that we will act as trustees for the exchange of analyses. If the difference between the two analyses does not exceed 0.5%, the average between the two will be the basis for settlement. Should the difference exceed 0.5%, then

Defendant V's Exhibit "1-F"—(Continued)

we will send our bottle to Ledoux & Company for an analysis of arbitration, the cost of which will have to be borne by the succumbing party.

There is another detail which the Apex wanted us to discuss with you; it refers to the freight rate. For internal arrangements Apex prefers that you prepay the freight to Chicago, so that they have nothing to do with it. You can of course debit us with the amount of the freight. We, in turn, can authorize you to declare a value of only 5c per pound, in order to keep the freight rate down to a minimum, and we hereby undertake to cover all these shipments under our insurance policy, at no cost to you.

We think the above covers all details for the time being, and trusting that the pleasant relationship which existed between the old mill and ourselves will continue on an even more active basis, we remain, with best regards,

Yours very truly,

CONTINENTAL ORE CORPORATION,
/s/ HENRY JOHN LEIR,
Henry John Leir.

HJL/LL

DEFENDANT V'S EXHIBIT "1-G"

August 16, 1940

Continental Ore Corporation
500 Fifth Avenue
New York

Attention: Mr. Henry John Leir

Dear Mr. Leir:

We are sorry that we perhaps went too far in our conversations with the Apex Smelting Company. However, at the time that we talked to them over the telephone, we had not as yet heard from you, and we were quite desirous of shipping the product.

We, of course, realize that you must have a commission for handling; and apparently I had misunderstood as to your relationship with the Apex Smelting Company. However, we will be glad to bill the Apex Smelting Company for $1.03 f.o.b. Thompson, and then deduct and pay to you directly your 3% if this is satisfactory. We certainly desire to follow your wishes in the matter and see that you collect your commission regularly.

We are shipping 5400 lbs to Chicago today. Shipment is being made by truck instead of railroad for the reason that the service should be much better, and also that we will be able to affect a savings on the freight.

Our mill is running quite well, and we have had no shut-downs since we started operation. Our recovery is not quite satisfactory as yet, but is never-

Defendant V's Exhibit "1-G"—(Continued)

theless improving. Our ore deposits look better daily.

Bigler and I were sorry that you and Mrs. Leir did not have time to stop on your way back from California; and if you are out this way again, we certainly want you and Mrs. Leir to arrange to come to Cortez and Blanding.

With kindest regards to yourself and Mrs. Leir,

Very truly yours,

DM:E

DEFENDANT V'S EXHIBIT "1-H"

Continental Ore Corporation
500 Fifth Avenue
New York

August 19, 1940

Blanding Mines Company
P. O. Box 895
Cortez, Colorado

Gentlemen:

We have carefully noted your letter of August 16th and it is up to you to decide whether you want to maintain the price you quoted to the Apex Smelting Company or whether you prefer to increase it.

All we want is the commission of 3%, which is a very moderate one.

Defendant V's Exhibit "1-H"—(Continued)

Of course, we must abstain from giving you any advice in this matter but all this correspondence could have been avoided had you not contacted Apex direct.

We think up to the present you have not had any bad experience with our firm. If we make a statement in our correspondence, you can entirely rely upon it.

We would suggest that in order to avoid any misunderstanding in the future, that you communicate only with us here in New York and all matters will run very smoothly as they have in the past.

I was very pleased to hear the operations are running well and I hope your recovery will also now improve.

I do not contemplate coming to the West during the next few weeks but I certainly will do my best to visit the new mill as soon as I can.

With best regards, I am

Very truly yours,

/s/ HENRY JOHN LEIR,
Henry John Leir.

HJL/r

DEFENDANT V'S EXHIBIT "1-J"

Continental Ore Corporation
500 Fifth Avenue
New York

August 20, 1940

Apex Smelting Company
2537 West Taylor Street
Chicago, Illinois

Re: Blanding

Gentlemen:

We have your letter of August 19th and will try to reach Mr. Lippa on the telephone in order to give you our remarks as to the following points:

1. Please do not crush the 5400 lbs. which are arriving but crush only, let us say, 200 to 300 lbs., according to our letter of August 17th and re-ship the balance of 5100 to 5200 lbs. in its original state (lumpy) to Ledoux.

2. As long as we are re-shipping this material, we would prefer that you do not let the Blanding Mines crush the material down to 1/8", according to your letter to them of August 19th. In other words, the material should remain lumpy as it has been in the past.

3. Instead of giving Blanding your own analysis on the 200 to 300 lbs. according to #1 of this letter, kindly wait a few days and we will give you Ledoux's exact figures for the 5100 to 5200 lbs. and you can exchange with Blanding the Ledoux figure.

Defendant V's Exhibit "1-J"—(Continued)

4. Should Blanding dispute the figure, then we will arrange for another analysis with Ledoux from this end, all the more because the arrangements with Blanding provide that we have the arbitration sample in our hands and that we have to do the necessary regarding the analysis in arbitration.

This whole system, in our opinion, is excellent and will certainly not lead to any differences.

However, we hereby confirm that we will take the responsibility upon ourselves for this whole transaction. As a matter of fact, the merchandise is simply going "in transit" thru your firm in this particular case.

5. It results from the foregoing that we also take care of the insurance from Chicago to New York.

6. Since it was too late to write you yesterday, we wish to inform you now that we had the opportunity late in the afternoon to sell another 5,000 lbs. of this acid.

7. Blanding intends to ship 20,000 lbs. during the next two months; we think it advisable to re-sell exactly these 20,000 lbs. to other parties because there is a production of about 10,000 lbs. every month from Rifle and two new productions which will open very shortly in Arizona and Los Angeles respectively.

Our sales of ferro vanadium will start on a larger

Defendant V's Exhibit "1-J"—(Continued)

scale only in September/October and will only reach the maximum from January on when the new contracts for 1941 will go into effect.

Blanding is in a position to increase the production to, let us say, 20,000/25,000 lbs. every month within sixty days' notice.

Rifle is in a position to increase the production in a similar way.

Our idea is to completely buy up both of these productions for the Apex and we can do it all the better if, in the meantime, we are in a position to take every pound they produce.

Needless to tell you that your requirements have first call on all vanadic acid we can secure in the market. However, we repeat that in order to eliminate any buyers in the next months and strengthen your position, it is now necessary to sell certain quantities. We think with the 20,000 lbs. sold according to the above suggestion, the situation will be decidedly in our favor, especially during the period when we will have to make arrangements with the various producers for our own 1941 requirements.

Very truly yours,

CONTINENTAL ORE CORPORATION,
/s/ HENRY JOHN LEIR,
Henry John Leir.

HJL/r

HENRY JOHN LEIR
30 Central Park West
New York, N.Y.

2405

JUN 12 1958

December 16,1940

Mr. Louis Lippa
3811 East 67th Street
Chicago, Illinois

Dear Mr. Lippa:

Your letter of December 6th to Continental was obviously written on a very hurried day; it also was written on a Friday — therefore, not under a lucky star and I therefore did not answer it.

However, your letters to the Continental in the meantime make me think that a reply is due now.

An impartial reader analyzing your letter would see the following situation:

1. You do not want to buy raw material for your manufacture because you are not sure the finished product will be sold. Careful

2. You feel you are under moral obligation to accept material from Blanding at $1.05 f.o.b. Chicago and from Shattuck at $1.10 f.o.b. Chicago, but you cannot authorize us to buy material from Morrison at $1.00, f.o.b. Chicago.

3. You doubt whether Morrison is able to supply material, although I just made a second trip out there within four months; incidentally both trips were made entirely out of Continental's pocket. You obviously have no confidence in my judgment.

I stopped when we sent you the order for 5,000 lbs. from Braeburn on December 9th, and you would now see that we know our business and that we are on the right track to develop it, because these 5,000 lbs. of Vanadium correspond to 13,000 lbs. of 205 which is the exact quantity we have available from Morrison for December.

If I want to bring Morrison's price down to $1.00, f.o.b. Chicago, as of the first of the year, I must be in a position to take his whole output of 15,000 to 18,000 lbs. a month. Therefore, we now even must sell at $2.70 in order to make the wheels go round and to get out of the vicious cycle described in your letter of December 6th.

If you can book an order at $2.75, we certainly will accept this price as you have seen from the orders we sent you from:

Disston
Simonds Saw & Steel
Latrobe

As the Continental Ore has a direct interest in your profits, it is needless to say that we are not throwing any money away by reducing the price to $2.70 if it is not absolutely necessary.

Defendant Vanadium Corporation Exhibit No. 1-K--(Continued)

There is no doubt in my mind that if we ship the 5,000 lbs. to Braeburn this month as specified, they will pay us at least $2.72 in January and probably $2.75 in February. But, I repeat, even if we had to sell every pound at $2.70 we must do so at this time in order to be in a position to buy Morrison's whole output at $1.00 per lb. f.o.b. Chicago; this will enable us to also bring down the price of Blanding's material, and also enable us to eliminate Shattuck.

The prime object must be to sell 15,000 lbs. of V per month so that we can take up the 30,000 lbs. of V205 from Morrison/Blanding and lower the price of our raw material.

It is easier to lower the price of the raw material than to increase the sales price; and on a price of $1.00 f.o.b. Chicago, we make quite a nice profit, even if we sell at $2.70.

Within the last three weeks, Mr. Hirschland has made two trips to Pennsylvania for the express purpose of selling ferro vanadium; he returned with the recommendation that we establish stocks at the consumers or at least in Pittsburgh. You rejected this proposal.

However, there is no doubt that if we can ship from Pittsburgh immediately, we will be in a better position to compete with the Vanadium Corporation in Bridgeville, Pa. and we will find that we can get $2.75 much easier than $2.70.

In order to substantiate what I have just written (although I do not believe anything we tell you needs substantiation), the Continental Ore Corporation will send you an order tomorrow for 5,000 lbs. of Ferro Vanadium or V which we are willing to buy at $2.75, f.o.b. Pittsburgh, less our commission of 2½%, and which we ourselves want to stock in Pittsburgh. You will see we mean business.

I am writing this letter while Mr. Hirschland is out of town (he is in Nicetown, near Philadelphia, today) on a trip for ferro vanadium and I would suggest that any reply to this letter be sent to my home; you will find the address above.

As you probably know, he is the nephew of Dr. Franz Hirschland, president of the Metal and Thermit Corporation, 120 Broadway, the firm which introduced the Goldschmidt process into this country thirty years ago. He was brought up in England and acquired a B.A. degree in Law at Cambridge.

We have found it is relatively easy for Mr. Hirschland to establish contacts with the consumers of ferro alloys because he can simply refer to his uncle's firm, who for years were the only ones who made ferro alloys by the aluminothermic process in this country.

As our program called for activity in these ferro alloys in the U.S., I found it advisable to take Mr. Hirschland into the firm. I can assure you that as long as he is in the Continental Ore Corporation, Metal and Thermit will not re-open its ferro department.

Defendant Vanadium Corporation Exhibit No. 1-K--(Continued)

I must also tell you that your letter of December 4th surprised me a little. You mention in this letter that "we have never before had anything so unpleasant occur to us".

I think this is a little exaggerated because I have been told that in the waste metal trade, difficulties -- particularly with merchants -- about the most ridiculous matters are quite frequent.

You will hear and probably read very shortly about the active part the Continental has played in the project of a Government-owned tin smelter; you will also hear that we had the courage, at the beginning of this year, to bring a technical man over from the other side, and he is today unanimously acknowledged the finest electro-metallurgist in his field.

All in all, we are enjoying a good reputation in different quarters today, and we are quite content with what we have accomplished.

With regard to the ferro alloy field, we have the sincere desire to continue and develop this business with you, if you so wish. The first item has been ferro vanadium, but as soon as ferro vanadium moves along on its own momentum, we will not hesitate to develop other items as well, and each of these items can easily represent $40,000. a year profit (without exaggeration), if you let us go ahead with our knowledge of the business and do not handicap us unnecessarily.

I think this business should be attractive to you, especially because no one can forsee whether the developments in your own field (aluminum) will remain as lucrative as they have been.

If there should be any misunderstandings, you can always write me and the situation will be cleared up. I think I have proved, in all my dealings with you, that I am broadminded, but I cannot conceal from you that many of your last letters appear to have been written in a very angry mood.

If you have no taste for this business, you should tell us frankly that you want to get rid of it.

If, however, you do like the business, then we should see from your letters that you are pleased with it.

Kindest regards.

Sincerely yours

HJL*r

DEFENDANT V'S EXHIBIT "1-L"

Continental Ore Corporation

November 6, 1940

To: Apex
Subject: Philipp Brothers, New York

We refer to yesterday's telephone conversation when you informed us that the above firm is anxious to obtain ferro vanadium from you.

May we be permitted to make the following comments regarding the above:

1. This New York firm knows that we are your agents and yet they approach you.

2. They did the exact same thing in the Knoxville case (kindly note enclosures which please return); you will see they finally gave in for Mr. Leute gave them the right answer and then they finally gave us their orders.

3. They used the same tactics with Fredet-Kuhlmann, Paris, in offering vanadic acid and vanadium ores to Mr. Spitzer and Mr. Spitzer repeatedly told them to communicate with us.

4. You certainly know that Mr. Forchheimer's brother is in the United States; he is a chemist and was in charge of their ferro alloy operations, first in Germany and then in Sweden. We wish to give you some good advice in this connection—use extreme caution with Mr. F. who is only too anxious to start here with this manufacture with which he is fully familiar.

5. Furthermore, you know that they are on the best of terms with Shattuck and if our memory is

Defendant V's Exhibit "1-L"—(Continued)

correct. Shattuck produced some ferro vanadium in previous years.

For all these reasons we recommend that you give no information whatsoever to Phillip Brothers.

6. As soon as the War is over, there will again be the International arrangements in Ferro Vanadium which existed heretofore and we must avoid bringing new parties into the Ferro Vanadium field.

7. Phillipp Brothers have been known for their big business, first with Germany, then with Italy and Japan and we think we should avoid becoming involved in their transactions.

8. If, however, they want to buy for guaranteed domestic use only, you would weaken your proper position as well as ours for we mention in every offer and confirmation that we are your agents.

CONTINENTAL ORE CORPORATION,

President.

H.J.L./r

DEFENDANT V'S EXHIBIT "1-N"

October 17, 1940

To: Apex

Re: Vanadium Corporation of America

We confirm our wire of today as follows: "Before Writing Vanadium Corporation Please Await Our Today's Letter".

In thinking over what we wrote you yesterday,

Defendant V's Exhibit "1-N"—(Continued)

it seems to us that it might perhaps be unwise to contact them because they may make a photostatic copy of your inquiry and use it against you when contacting consumers, hinting at your dependence on raw material.

However, this is only a thought and it is up to you to decide.

CONTINENTAL ORE CORPORATION,

President.

H.J.Leir/r

P.S. This of course applies also to the Electro Metallurgical Sales Corporation.

DEFENDANT V's EXHIBIT "1-Q"

(Copy)

National Vanadium Corporation
Box 583, Grand Junction, Colo.

9/10/41

Continental Ore Corp.
500 5th Ave.
New York City, N. Y.

Attention—Mr. Henry J. Leir

Dear Mr. Leir:

I thought you would be interested in knowing that the government engineers have completed their preliminary examination of our properties and have recommended a complete survey and assay development with proper maps.

Defendant V's Exhibit "1-Q"—(Continued)

The men who were sent were Mr. Jackson, chief engineer of the bureau of mines with two assistants, also Dr. Hewitt, chief of the geological survey with two assistants. The work will begin at once and rushed as much as possible with crews from both departments doing the work.

I have taken up with my directors the matters we discussed in your office and here are a few of the questions which they asked me.

(1) Will they sign a bonded five year contract for the entire output of our 100 ton mill.

(2) Will they pay $1.00 per pound fused V_2O_5, 85% or better, F.O.B. Thompson Utah, and increase this price in the relation to what ever increase there might be in the price of their ferro alloy.

(3) When will they furnish funds to stock pile ore on at least a two months anticipation basis, before mill is started or after.

I am quoting these questions for your information and might add that my directors are interested in your proposition. I have also recommended it to them as I told you I would do.

When the assay maps and surveys are completed to the point which we believe will meet the requirements of the R.F.C. I will return to Washington with our complete application. You will probably not be surprised to hear that the U. S. Vanadium Corp. are endeavoring to tie up our product if we are successful and also to block us in every way possible if we do not line up with them.

Defendant V's Exhibit "1-Q"—(Continued)

Trusting I will hear from you.

Very truly yours,

NATIONAL VANADIUM
CORP.,
(Signed Wyman Sanford.)

co
WS

Continental Ore Corporation

Date: 9/16/41

To: Apex Smelting Company
Subject: National Vanadium Corp.

Please find herewith enclosed copies of correspondence with the above.

Kindly send us a letter which we can forward to them.

In any case, we should be cooperative, in order to obtain this output, which, on the basis of 100 tons crude ore per day, we estimate as follows:

Average of the ore	2.5 tons
Less 20% loss in recovery	0.5 tons
	2.0 tons daily

= 60 tons per month
= 120,000 pounds of V_2O_5

However, you will remember that they want to make only 80,000 pounds of V_2O_5 per month, which would enable us to make about 40,000 pounds of V,

Defendant V's Exhibit "1-Q"—(Continued)

on which we should be able to make a profit of about $8,000.00 a month.

We shall be awaiting your news.

CONTINENTAL ORE CORPORATION,
/s/ HENRY J. LEIR.

Henry J. Leir/rk

September 16, 1941

National Vanadium Corporation
Box 583
Grand Junction, Colorado
Attention: Mr. Wyman Sanford

Gentlemen:

We wrote you yesterday and received your letter dated September 10th this morning.

We immediately submitted your letter to the Apex Smelting Company, and will reply in a few days.

In the meantime, we should like to point out the following with regard to the three specific questions you put before us:

1. We are willing to sign a 5-year contract for your total output, and will put up a bond to insure payments.

Inasmuch as you certainly do not want to guarantee a definite amount of production, we think Apex should just give you the preference on their

Defendant V's Exhibit "1-Q"—(Continued)

total requirements, with regard to all you can produce.

2. The price they pay, which we mentioned the other day in New York, is $1.00 per pound delivered Chicago. The freight rate for you is 2c. We would return the bags or drums, so that you can save on that. The price would be based upon their sales price for the finished Ferro-Vanadium.

3. We think that it is only fair that Apex should have an opportunity to see proof that your process is a good one, before they invest money for the ore stock pile.

As mentioned above, we have submitted your letter to the Apex Smelting Company, and will write you again within the next few days.

Very truly yours,

CONTINENTAL ORE CORPORATION,

.....,

President.

Henry J. Leir/rk

Sept. 17, 1941

Continental Ore Corporation
500 Fifth Avenue
New York, N. Y.
Attention: Mr. Henry J. Leir

Gentlemen:

We have your letter of September 16th which is

Defendant V's Exhibit "1-Q"—(Continued)

in reference to advancing money to cover a supply of ore to the National Vanadium Corporation.

Mr. Singer and I have very carefully thought this matter over, and we come to the conclusion that we have so frequently expressed to you, and that is to keep ourselves from becoming involved in anything outside of our own operations. We, of course, are always glad to finance our own operations, but we do not feel it advisable to finance raw materials in the plants of others, and therefore, we regret exceedingly that we must turn down this National Vanadium suggestion.

So far as a contract with them is concerned, we feel it is entirely too dangerous to tie up for a five year contract, in fact for any length of time. We would be glad to give them a contract based on the market for Ferro Vanadium and for a per cent of our production. In other words, if we sell 50000 lbs. of Vanadium contained material a month, we would guarantee to purchase from them 60 or 70% of that amount. A contract such as this would be flexible and would take care of us so that if business dropped off entirely, we would have no obligations.

We are also in receipt of your letter of September 17th, and we wish to advise that we temporarily held up the new construction although we have set aside one building which we hope will eventually house the Ferro Department. It so happens that in order to make this building suitable, the other build-

Defendant V's Exhibit "1-Q"—(Continued)

ings have to be done with it, and it will require an expenditure of approximately $75000.00, and we just deemed it advisable to hold up until we have completed some of our other work, and also to determine whether the sources of Vanadium would develop sufficient material to run that department, for as you know, we are not getting a sufficient quantity to run our present facilities on half time.

We, of course, have faith in this department, and you may rest assured that we will not fail to keep up with the situation, and will utilize the building set aside for it as quickly as we possibly can.

Incidentally, we wonder if you are making any progress on the disposal of the Ferro-Tungsten we have on hand.

If you have any further views pertaining to this National Vanadium, we, of course, would be very glad to have you advise us.

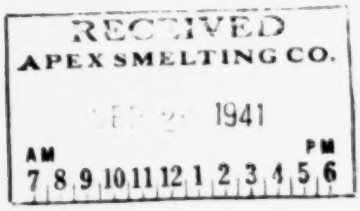
Very truly yours,

APEX SMELTING CO.,
L. LIPPA.

LL:FS

9-434

CONTINENTAL ORE CORPORATION



TO: Apex Smelting Company

RE: NATIONAL VANADIUM CORP.

9/19/41

We have your letter of September 17th, which, frankly, we do not understand.

As we note from the last paragraph of Page 1, you are temporarily holding up the new construction because of the raw material situation.

Therefore, one would think that you would be anxious to tie up this new vanadic acid production.

We agree with you completely that this agreement should be made in a very cautious form, in order to avoid any speculation or risk.

We can also understand that you do not want to help in the financing of a stock pile of the raw ore.

But you should at least give us a free hand with regard to signing a contract for the vanadic acid, in order to encourage them to create this new mill.

We therefore suggest that you let us sign a contract with them according to which we would give them:

Preference on all your requirements of Vanadic Acid
for a period of 5 years.

The price would be $1.00 per pound V205 delivered Chicago, and would be related to your present sales price of the finished product, going up and down accordingly.

We do not believe such a contract (we have signed a similar one with regard to the Deadwood Tungsten, as you know) would constitute any risk for you. It would then be a question only of how to manage the output from: Shattuck, Blanding, and Gateway. We think you can rely upon us to create larger sales of ferro vanadium, in the same proportion in which we obtain raw material.

You must admit that the building of a mill for 80,000 pounds of V205 per month represents many times the output of Shattuck and Blanding, and we think that we have reason to offer them some inducement to go ahead in their project.

Please let us have your reaction to the above.

CONTINENTAL ORE CORPORATION

Henry J. Leir/rk

DEFENDANT V'S EXHIBIT "1-R"

cc Apex

September 26, 1941

National Vanadium Corporation
Box 583
Grand Junction, Colorado

Attention: Mr. Wyman Sanford

Gentlemen:

With reference to our most recent correspondence, we had the opportunity to discuss the situation with the Apex Smelting Company yesterday.

1. They agree to let us sign up with you for 70% of their requirements. This is all we could obtain. They are on very good terms with their present suppliers of vanadic acid, and you will understand that they do not want to endanger these relations.

2. While we estimate that this 70% of their requirements will absorb the biggest part of your production, there might be a surplus, which we should like to sell for your account, on a commission basis, to the smaller consumers of vanadic acid in this country and abroad. We would charge you a commission of 2%. It is understood, of course, that shipments to Apex would be exempt from this commission.

3. With regard to this point, we refer to Point 3 in our letter of September 16th. We do not doubt that as soon as you are in production and Apex is convinced that you can supply them with the proper

Defendant V's Exhibit "1-R"—(Continued)

grade, something can be arranged to help you financially.

We hope that the above is sufficient for the present.

If you come East, please let us know, so that we can get together and make a definite contract along the above lines.

Very truly yours,

CONTINENTAL ORE CORPORATION,

.....,

President.

Henry J. Leir/rk

P.S.—You will have noted from your discussion with Apex that they are very conservative. It is our personal opinion that the consumption of Ferro Vanadium will go up so very much that eventually every pound of your production will go to Apex. However, you will appreciate their attitude to their present suppliers.

DEFENDANT V'S EXHIBIT "1-T"

November 27, 1941

Yesterday I saw Mr. Linz, a chemist, of the Climax Molybdenum Corp., and I gathered from him the following:

1. They do not expect any shortage of molybdenum in 1942. They alone will have 65 million

Defendant V's Exhibit "1-T"—(Continued)

pounds. The production of Kennecott is 12 million pounds.

2. The molybdenum briquettes contain carbon as binder. Carbon reacts for the reduction only if it is pressed. Therefore, mixing molybdenum with carbon powder and packing it into cans would not be useful.

3. These molybdenum briquettes are very useful in the electric furnace, where no carbon is contained.

4. For open hearth furnaces, it seems that they recommend calcium molybdate and molybdenum in cans.

5. In open hearth furnaces, where carbon is present, Scheelite and vanadic acid work automatically because the carbon reduces them.

6. Linz has patents himself for the use of carbon in pressed form as a mixture for tungsten, vanadium, etc.

7. Dr. Saklatwalla has patents for exothermic mixtures, comprising silicon and aluminum as agents. Mr. Linz does not know whether these patents are still in force.

8. Calcium vanadate would be an ideal compound.

9. Linz assures me that mixtures of vanadium with aluminum would lead necessarily to explosions, and he warned me of the danger involved.

Henry J. Leir/rk

Defendant V's Exhibit "1-T"—(Continued)

Apex Smelting Company
Vanadic Acid

11/27/41

We wrote you the other day that you should inform your suppliers to ship all the material in ground form, ground to 1/8" and down.

In making this suggestion, we of course assume that you can use material of such sizes also for the production of ferro vanadium.

However, if 1/8" is too fine for the making of ferro vanadium, then we think we should let the suppliers ship the material in some coarser size, fit for the production of both Van-Ex and ferro vanadium.

With regard to the amount of aluminum to be used, we are just now making some new investigations. We will know more in a few days.

We think it very likely that we will suggest that you keep the amount of aluminum lower than you anticipated, in order to avoid any damage of explosions in the steel furnace.

Therefore, until you have such new information from us, please do not prepare any mixtures for Van-Ex.

CONTINENTAL ORE CORPORATION.

Henry J. Leir/rk

DEFENDANT V'S EXHIBIT "1-U"

12/3/41

Apex Smelting Company
Van-Ex

Please find herewith enclosed a copy of our today's letter to Mr. Frankel, of Washington.

The man from whom we expect to receive some more information with regard to the correct amount of aluminum is, unfortunately, out of town, and we will be able to see him only on Monday.

In any case, we confirm our letter of November 27th, and would ask you not to prepare any mixtures before we enlighten you a little more about the proper quantity of aluminum.

Another question is whether you would have an opportunity in Chicago to approach a steel mill and place a few cans into their steel furnace (by preference an electric steel furnace) with varying amounts of aluminum, in order to make a practical test before actually shipping such material to the steel mills.

It must be our aim to add less aluminum, rather than too much, in order to eliminate any danger of explosions.

CONTINENTAL ORE CORPORATION.

Henry J. Leir/rk

DEFENDANT V'S EXHIBIT "1-Y"

Continental Ore Corporation

1/27/42

To: Apex Smelting Company

Attention: Mr. L. Lippa

We received your telegram, reading as follows: In View of Continued Losses In Our Ferro Department and The Increasing Difficulty In Securing Men to Work In That Department Due to Its Hazardous Nature We Are Compelled to Advise You That We Are Forced to Discontinue This Department Will Do Our Utmost to Fill Present Orders Subject to Approval From Washington.

which arrived in the absence of both Mr. Leir and Mr. Wolf. We immediately advised both of them regarding its contents.

They will contact you directly.

CONTINENTAL ORE CORPORATION,

/s/ E. D. LEIR.

edl/rk

DEFENDANT V'S EXHIBIT "2-B"

[Note: Letter, June 2, 1942, Apex Smelting Co. to Henry J. Leir is read in evidence at pages 1188-1191 of this printed record.]

2320

ALEXANDER GRANT & COMPANY

MEMBERS AMERICAN INSTITUTE OF ACCOUNTANTS
CERTIFIED PUBLIC ACCOUNTANTS
CHICAGO

May 29, 1942

Defendant Vanadium Corporation Exhibit No. 2-B--(Continue

Mr. W. A. Singer, President
Apex Smelting Co.
2537 West Taylor Street
Chicago, Illinois

Dear Sir:

In accordance with the provisions of an agreement dated July 1, 1938 between Apex Smelting Co. (an Illinois corporation) and Societe D'Electro-Chimie De Brignoud (a French corporation), we have prepared the attached statement of net receipts of the Thermit Department of Apex Smelting Co. for the period from July 1, 1938 to April 30, 1942. As this statement shows a deficiency of $8,420.60 of net receipts for this period, there is no royalty payable under the terms of the agreement.

During the course of our regular audits of Apex Smelting Co., we have reviewed the records of the Thermit Department but we did not make a detailed audit of all of the departmental transactions. Based upon such review, it is our opinion that the accompanying statement of net receipts presents fairly the results of the operations of the Thermit Department in accordance with the factors defined in paragraph five of the aforementioned agreement.

Respectfully,

Alexander Grant & Company

This report or certificate is delivered to client with the specific reservation that copy, publication or quotation thereof, either in full or in part, shall be in form approved by us. It is not to be published or quoted

STATEMENT OF "NET RECEIPTS" OF THERMIT DEPARTMENT AS DEFINED IN PARAGRAPH FIVE OF AGREEMENT DATED JULY 1, 1938 BETWEEN APEX SMELTING CO. (AN ILLINOIS CORPORATION) AND SOCIETE D'ELECTRO-CHIMIE DE BRIGNOUD (A FRENCH CORPORATION)

July 1, 1938 to April 30, 1942

RECEIPTS	JULY 1, 1938 TO APRIL 30, 1942	JANUARY 1, 1942 TO APRIL 30, 1942	YEAR 1941	JULY 1, 1938 TO DECEMBER 31, 1940
Sales				
Domestic	$339,120.00	$72,384.95	$222,609.81	$44,125.24
Export	10,498.25	-	-	10,498.25
TOTAL RECEIPTS	349,618.25	72,384.95	222,609.81	54,623.49
CHARGES				
Direct charges				
Raw materials and fluxes				
Inventory at beginning	-	46,356.62	21,124.44	-
Purchases	305,297.06	17,696.14	215,099.29	72,501.63
	305,297.06	64,052.76	236,223.73	72,501.63
Less inventory at end	2,959.52	2,959.52	46,356.62	21,124.44
	302,337.54	61,093.24	189,867.11	51,377.19
Labor				
Direct	12,468.48	1,410.33	7,625.43	3,432.72
Supervision and maintenance	5,414.14	680.00	2,589.14	2,145.00
	17,882.62	2,090.33	10,214.57	5,577.72
Compensation insurance Estimated at 4% of total labor	715.31	83.61	408.59	223.11
Social security taxes Estimated at 4% of total labor	715.31	83.61	408.59	223.11
Fuel and power - 199 heats at an estimated cost of $7.50 each	1,492.50	285.00	975.00	232.50
Rental - 5,322 square feet at 30¢ for year 1940; 6,662 square feet at 30¢ for year 1941 and 1942 (4 months only of 1942)	4,261.40	666.20	1,998.60	1,596.60
Depreciation of equipment				
1940 - 7.69% of $9,763.33 for 1/2 year	375.40	-	-	37[illegible]
1941 - 7.69% of $9,763.33 for full year	751.17	-	751.17	-
1941 - 7.69% of $3,171.77 for 1/2 year	121.95	-	121.95	-
1942 - 7.69% of $13,341.97 for 1/3 year	342.00	342.00	-	-
	1,590.52	342.00	873.12	375.40
Laboratory expenses - 1,614 determinations at an estimated cost of $1.50 each	2,421.00	310.50	1,243.50	867.00
Sales commissions	8,480.49	1,798.55	5,493.21	1,188.73
Freight on sales	2,330.09	437.50	1,485.66	406.93
Unclassified	2,392.86	193.83	934.53	1,264.50
TOTAL DIRECT CHARGES	344,619.64	67,384.37	213,902.48	63,332.79
Indirect expenses	13,419.21	2,157.93	9,245.57	2,015.71
TOTAL CHARGES	358,038.85	69,542.30	223,148.05	65,348.50
NET RECEIPTS (DEFICIENCY)	$ 8,420.60	$ 2,842.65*	$ 538.24	$10,725.01

(*) Net receipts before provision for Federal income and excess profits taxes.

COMPUTATION OF INDIRECT EXPENSES OF THERMIT DEPARTMENT AS DEFINED IN PARAGRAPH FIVE OF AGREEMENT DATED JULY 1, 1938 BETWEEN APEX SMELTING CO. (AN ILLINOIS CORPORATION) AND SOCIETE D'ELECTRO-CHIMIE DE BRIGNOUD (A FRENCH CORPORATION)

January 1, 1940 to April 30, 1942 - Note (1)

	JANUARY 1, 1942 TO APRIL 30, 1942 NOTE (2)	YEAR 1941	YEAR 1940
Indirect expenses			
Officers' salaries	$ -	$ 27,900.00	$ 23,900.00
Office salaries	-	15,802.22	12,263.81
Supervision salaries	-	14,995.53	13,798.28
Research salaries	-	8,984.66	6,008.01
Watchmen and janitor	-	8,200.14	5,822.35
Sales salaries	-	7,000.00	6,699.00
Purchase salaries	-	4,775.00	2,325.00
Vacations	-	1,409.00	1,741.00
Additional compensation	-	46,673.00	34,801.00
Real estate, personal property and franchise taxes	-	9,580.85	9,498.16
Telephone and telegraph	-	8,183.41	4,905.58
Unclassified	-	6,279.78	4,534.39
Traveling	-	4,529.15	3,217.40
Dues and subscriptions	-	4,526.94	3,282.97
Pension expense	-	3,232.63	3,315.67
Fire insurance	-	2,765.96	1,770.49
Sales expense	-	2,509.59	2,727.62
Refuse removal	-	2,416.10	1,171.00
Stationery and printing	-	2,339.15	1,571.49
Research supplies	-	1,858.17	1,612.63
Legal and audit fees	-	1,606.71	1,746.66
Postage	-	1,500.66	939.97
Welfare expense	-	1,277.85	1,390.48
Miscellaneous insurance	-	751.43	976.69
Advertising	-	749.50	1,417.75
TOTAL	63,282.48	189,847.43	151,557.40
Percentage applicable to Thermit Department - Note (3)	3.41%	4.87%	1.33%
Amount applicable to Thermit Department	$ 2,157.93	$ 9,245.57	$ 2,015.71

Note (1) - Operations of the Thermit Department for the period from July 1, 1938 to January 1, 1940 were experimental and no indirect expenses were charged thereto.

Note (2) - Indirect expenses for the period from January 1, 1942 to April 30, 1942 are estimated to equal one-third of the indirect expenses for the year 1941.

Note (3) - The percentage of indirect expenses applicable to the Thermit Department is computed as follows:

Total sales	$2,124,987.94	$4,571,869.04	$4,108,113.81
Sales of Thermit Department	72,384.95	222,609.81	54,623.49
Percentage of Thermit Department sales to total sales	3.41%	4.87%	1.33%

DEFENDANT V'S EXHIBIT "2-C"

February 1, 1943

Mr. Henry J. Leir
Continental Ore Company
500 Fifth Avenue
New York, N. Y.

Dear Mr. Leir:

Please accept our thanks for your letter of January 28. I have discussed this matter with both Mr. Starmann and Mr. Singer and we all regret exceedingly to advise that due to the demand upon our time at Apex it would not be advisable to associate ourselves with any other enterprise at this time.

Furthermore, from an investment standpoint, in view of the high taxes, there really is no great advantage to us. As a matter of information to you, however, I would like to call your attention to your plan "a". You will note that you stipulate approximately $5,000 will be allocated for equipment. As you know, our investment and equipment was considerably higher than that and was greatly inadequate for a sound, efficient business. We believe that you are making a mistake in figuring so small an amount for that item.

I regret exceedingly that I am unable to give you any more favorable news than this. The above explains our attitude at the moment. What the future will bring, we do not know, but we feel it would be inadvisable for any of this at this time.

Defendant V's Exhibit "2-C"—(Continued)

Thank you, however, for your thought in this matter, and with kindest regards, we are

Very truly yours,

APEX SMELTING CO.,
L. LIPPA.

LL/e

[Letterhead of Continental Ore Company]

Mr. Louis Lippa
Apex Smelting Company January 28, 1943
2537 West Taylor Street
Chicago, Illinois

Re: Ferro Alloys

Dear Mr. Lippa:

We are at last able to resume the production of ferro vanadium since sufficient raw material is available and fully assured by the WPB.

Inasmuch as we cannot, unfortunately, count on Mr. Starmann at the present time, we have made arrangements with a first-class specialist who is familiar with production not only in the electric furnace but by alumino-thermic and silico-thermic reaction as well.

While reduction by silicon would be somewhat cheaper, we would of course prefer the alumino-thermic process if only to maintain our business relations with you.

And we would prefer also to have you join our

Defendant V's Exhibit "2-C"—(Continued)

new enterprise in one way or another so that you could watch it from the first moment on.

We intend to form a separate corporation in any event for this manufacture according to one of the two following plans:

a) The new corporation to finance the entire business on its own account and keep all the profits. Sales: through C.O.C. on a 2.5% commission basis. Capital: between $50,000 and $100,000 of which approximately $5,000 would be allocated for equipment, the remainder for raw material and working fund.

b) The new corporation to be formed with a small capital: $1,000, $5,000 or $10,000, and with the purpose of converting vanadium oxide only on a toll basis for the account of C.O.C. at cost plus 10%. Financing of raw material, etc., by C.O.C.

We would very much like to have you join us in either combination.

We can tell you that if you personally prefer Proposition B, we would not ask your aid in financing, not even as regards the aluminum, since we have assurances from our bankers concerning an adequate credit.

We believe there are such large possibilities for the future in this field that we would like to be associated with you right from the beginning. We are confident that once the war is over you will be

Defendant V's Exhibit "2-C"—(Continued)

more interested than now in this alumino-thermic field.

If Apex as a firm cannot join us, we suggest that Mr. Singer, you and Mr. Starmann come into the new corporation as individuals.

I am enclosing herewith a balance sheet of our firm as of December 31, from which you can see that we have expanded our business again during the past year.

The new enterprise would start with ferro vanadium and later take in

ferro zirconium
ferro titanium

For your information, the business in Van-Ex would be discontinued.

May we hear from you?

Sincerely yours,

/s/ HENRY J. LEIR.
Henry J. Leir.

hjl/ek

Defendant V's Exhibit "2-C"—(Continued)

Continental Ore Company
Balance Sheet
December 31, 1942

Assets

Current Assets		
Cash in bank	$ 21,909.35	
Cash on hand	242.55	
Accounts receivable	122,685.98	
Accounts payable—debit balances	37.64	
Merchandise inventory	198.40	
Loan receivable	1,097.87	
Due from New York State Tax Commission	284.91	
		$146,456.70
Total Current Assets		
Capital Assets		
Furniture and fixtures	693.08	
Less:		
Reserve for Depreciation	—15.04	
		678.04
Total Capital Assets		
Unexpired insurance premiums		317.56
Security deposits		258.33
Deposit on purchase of equipment		112.50
Investment — 25 shares Preferred Stock in mining corporation		2,500.00
Total Assets		$150,323.13

DEFENDANT V'S EXHIBIT "2-G"

Chicago January 19, 1942

Continental Ore Corp.

Attention: Mr. H. J. Leir

Gentlemen:

We have your letters of the 15th and the 16th, and we wish to advise that we would prefer not to run the Columbite, but would prefer to have you sell it, and of course while you are not recommending the purchase of additional Columbite at the present time, still we would not be interested in purchasing it.

Mr. Christiansen has returned, and we are now digesting his information and will write you in detail tomorrow.

We want you to know that we have been attempting to start the Ferro Department ever since last Tuesday, but we have had a lot of labor difficulty. It so happens that our men are now organizing, and the men that we have had in the Ferro Department refuse to go back into it, as they claim that it is injurious to their health. We have promises from a sufficient number of men to start the Department tomorrow, but each of these men have not promised to stay in the Department over four days. What the outcome of this will be, we cannot yet determine, but we will keep you advised.

We also note letter addressed to Mr. Singer. As you know, Mr. Singer is now with the OPM, but we will try to get your letter to him.

Very truly yours,

LL:FS

Defendant V's Exhibit "2-G"—(Continued)

January 13, 1942

Chicago
Continental Ore Corporation

Attention: Mr. H. J. Leir

Gentlemen:

We have your letter of January 12th, and wish to advise that our Mr. Christiansen will be in Washington this week, at which time he will go over this entire matter with the Vanadium Section of the OPM. After receipt of his report, we will contact you and advise you regarding the results.

We note the article you sent to us from Business Week, but we do not feel that we can consider this as authoritative, as the orders as given out by the OPM are specific, and we would not have any excuse to deviate from those orders.

We hope to get into production on Ferro Alloy this week, although we are having some difficulty with the labor, as most of them refuse to go to work in that Department. As you know, we have been trying to secure the proper respirators, but somehow or other, we have never been able to get any that keep the dust from getting into the men's throats and nostrils.

However, we will try to overcome this the best way we possibly can.

Very truly yours,

LL:FS

DEFENDANT V'S EXHIBIT "2-H"

(Copy) Apex Smelting Co.
2537 W. Taylor St., Chicago, Ill.

April 23, 1942

Vanadium Corporation of America
420 Lexington Avenue
New York City, N. Y.

Att: Mr. Gustav Laub, Vice President

Gentlemen:

In accordance with conversation our Mr. Christiansen had with you, we are pleased to enclose an equipment inventory of our Ferro Alloy Department which we desire to sell.

This list does not include all the equipment used in that department, since we find use for the rest of it in our aluminum production.

We would appreciate very much if you will advise us by return mail whether this will be of any interest to you.

We are greatly in need of the space and therefore are anxious to move these items as quickly as possible.

Incidentally, if your Chicago office would like to inspect this material, we want you to know that they will be welcome to do so.

Very truly yours,

APEX SMELTING CO.
L. Lippa.

LL:L
encl.
EWC

Received April 24, 1942—G. L.

Defendant V Exhibit No. "2-H"—(Continued)

(Copy) Apex Smelting Co.

Ferro Alloy Department Equipment

Inventory:	New Value
Item 1: Allis-Chalmers 7" x 9" Dodge steel frame jaw crusher # 3604, 36" x 4" double flywheel, 9 strand V belt motor drive, 32" centers, 30" grooved drive pulley, 7" grooved motor pulley. Master 10 H. P. induction motor #IN714, type PA, 3 phase, 60 cycles, 220 volts, 1150 R.P.M., Wadsworth 60 amp. 250 volt enclosed switch.	$1052.12
Item 2: Allis-Chalmers 7" x 9" Dodge C. I. frame jaw crasher #3599 with Allis-Chalmers 9-strand 10 H. P. Texrope drive. 30" centers, Master 10 H. P. induction motor #IM12, type PA, 3 phase, 60 cycles, 220 volts, 1150 R.P.M.	836.89
Item 3: Swinging jib crane 5" x 15' pipe mast with top and bottom ball bearings. 2" x 14' pipe jib, 2 winches and 3' wire cable.	157.00
Item 4: Twelve 48" x 48"—6" I beam frame industrial crucible trucks, 16" single flange wheel.	600.00
Item 5: A & J Iron and Boiler Works—4 Magnesite or ore dump buckets, 22" deep with sloping front side from top 40" x 20" to bottom 24" x 20".	171.68

Defendant V Exhibit No. "2-H"—(Continued)

Item 6: A & J Iron and Boiler Works—1 Flat bottom crucible form (28" dia.)	41.00
1 round bottom crucible form (28" dia. at top of crucible) 53" high — 25" wide at bottom.	61.77
Item 7: A & J Iron and Boiler Works—5 sets of crucible rings, 40 ½ rings. Each crucible has 4 complete rings, each 49" diameter and 12" high.	600.00
Item 8: 80 clamps and wedges to fasten the crucible rings.	200.00

Received April 24, 1942—G. L.

DEFENDANT V EXHIBIT No. "2-J"

[Letterhead of Continental Ore Corporation]

Blanding Mines Company
P. O. Box 895
Cortez, Colorado

March 16, 1942

Attention: Mr. Dan Milenski

Dear Mr. Milenski:

We refer to our letter of March 5th, to which we have not yet received any reply.

As you can see from the enclosed clipping, prices for Ferro Alloys will remain unchanged during the second quarter.

However, we have an idea which makes it possi-

Defendant V Exhibit No. "2-J"—(Continued)

ble for us to pay our suppliers an especially high price, which would work out in your case to be as high as $1.20 FOB Blanding.

If you are interested in a contract, please let us know.

Very truly yours,

CONTINENTAL ORE CORPORATION,
/s/ HENRY J. LEIR,
President.

Henry J. Leir/rk

DEFENDANT V EXHIBIT No. "2-K"

(Copy)

Mr. Henry John Leir — February 8, 1944
Continental Oil Company
500 Fifth Avenue
New York, New York

Dear Mr. Leir:

In line with our telephone conversation yesterday morning, I talked at length to Blanding Mines Company's engineer, Mr. Fred A. Brinker of Durango, Colorado, concerning the probable disposition of his concentrating process.

I find that Mr. Brinker has been in contact with both U. S. Vanadium Company and Vanadium Corporation of America, however, he has delt with neither and as far as Mr. Brinker is concerned,

Defendant V Exhibit No. "2-K"—(Continued)

he is willing to make an equitable deal with our company. As I advised you over the phone, the process which Brinker discovered while in the employ of Blanding Mines is the separate property of Mr. Brinker.

Brinker has perfected a concentrating process whereby about five tons of ore are concentrated into one. That recovery in this concentration is in excess of 90% of the V_2O_5 and U_3O_8 contained and also, the radium, if any, is in the concentrate. Brinker states that the cost of concentrating would be probably $1.50 per ton. In view of the fact that the average transportation costs on moving ore to a mill-site are more than this, the process appears to have unlimited possibilities.

Blanding Mines Company controls quite a number of claims and with these claims and others we could acquire or control, it is our opinion that we could, through this process, concentrate and treat the concentrate and recover approximately 50,000 pounds of vanadium and a considerable quantity of uranium every month. Mr. Brinker suggested that if you could spare the time to make a trip to this section that he believes the same highly desirable and advisable for the reason that you could see these properties and could see the mills in this territory and, in addition, you could get a complete picture of the actual mining and milling costs and production practices and problems. Blanding Mines Company's records are kept in great detail and we

Defendant V Exhibit No. "2-K"—(Continued)

have cost analyses of every phase of the operation. We believe that it would be unavailing to meet in any location other than here for the reason that you ought to familiarize yourself with the production of vanadium and uranium.

I believe that Blanding Mines would be interested in working out a joint undertaking or some other arrangement whereby we would work in harmony and to the mutual advantage of each other and that such an arrangement is highly desirable on account of your marketing set-up and your marketing ability and our milling and producing experience.

As far as I am concerned, there is a great deal of uncertainty as to any expansion program by the present owners of Blanding Mines. I anticipate that I will probably be in the Army before long and our organization would like to formulate their plans for the future rather soon.

If we are going to utilize Brinker's process, which is revolutionary, we are going to need additional capital, as I mentioned to you over the telephone. I don't know the exact amount that it will take and we feel that before endeavoring to discuss the possibility of any arrangement with you that you should first see this vanadium producting section and if you could make arrangements to come to either Gallup or Albuquerque, New Mexico, we would be very happy to pick you up and bring you

Defendant V Exhibit No. "2-K"—(Continued)

to Cortez and spend all the time with you that would be needed.

To utilize Mr. Brinker's process, we would need a concentrating mill and a treatment plant; expansion should take care of itself. The costs of recovery by this process will be much less than it has been in the past. Whether or not others would be licensed is another problem.

In the event that you should decide to make this trip, my wife asked me to extend to your wife an invitation to accompany you and to be our guest while you are here. We certainly enjoyed our visit with you in Grand Junction and we certainly hope that you will be able to come to this section.

Your Christmas favor was greatly appreciated.

Very truly yours,

DM:mp

[Western Union Telegram]

DU 10 NL—New York NY Feb 18
Daniel Milenski
Cortez Colo

Will Arrive Grand Junction, La Court Hotel Wednesday Evening, March First and Be Available Thursday and Friday, March Second and Third. Must Leave Grand Junction Friday Evening for Denver. Please Arrange to Come to Grand Junction With Your Associates—Henry J. Leir.

Defendant V Exhibit No. "2-K"—(Continued)

[Night Letter]

Mr. Henry John Leir
Continental Ore Co.
500 Fifth Ave.
New York, New York

Suggest you arrange to mave us meet you in Alamosa, you may get train from Denver for Alamosa in the evening. This would permit you to examine our mining and mill records in Durango, Colorado, and then we could go to the mining districts and our mill, and we could take you to Grand Junction if you wish. Deem it advisable for you to have about 3 days in this territory as we desire that you thoroughly familiarize yourself with our operations and holdings.

Dan Milenski.

Agreement Made and Entered into this .... day of March, 1944 by and between Blading Mines Company, a Utah corporation, having its principal place of business in Cortez, Colorado, (hereinafter called "Blading") party of the first part, and Henry J. Leir, E. D. Leir and L. Schloss, co-partners doing business under the firm name and style of Continental Ore Company, 500 Fifth Avenue, New York, N. Y., (hereinafter called "Continental") party of the second part.

Defendant V Exhibit No. "2-K"—(Continued)

Witnesseth

Whereas Blading owns vanadium deposits and has heretofore entered into a lease upon a certain plant of the Defense Plant Corporation, to be used for the manufacture of vanadium pentoxide, and

Whereas Continental is a manufacturer of ferro vanadium by a special secret process and is also engaged in business as a dealer in vanadium and similar products and acts as agent on behalf of producers of vanadium products of all kinds, and

Whereas the parties hereto desire that Continental shall provide to Blading a continuous outlet for the vanadium and similar products manufactured by Blading, including uranium and radium or intermediary products,

Now, Therefore, in consideration of the premises, the parties hereto agree as follows, to wit:

1. Continental undertakes to receive delivery of the entire output of vanadium pentoxide as produced by Blading as the same shall or may be specified for delivery from time to time by Continental but subject to the limitations hereinafter in this agreement contained, and Continental undertakes and agrees upon the delivery thereof to pay to Blading the purchase price thereof, and Blading covenants and agrees that during the life of this contract that it will not sell or offer for sale any vanadium pentoxide unless and until Continental shall give notice that it will not accept delivery of the same, and then only upon the terms and con-

Defendant V Exhibit No. "2-K"—(Continued)

ditions hereinafter in this agreement more particularly provided.

2. Blading agrees that vanadium pentoxide tendered for delivery pursuant to the terms hereof will be fuxed into a material commonly referred to in the market as "Black Oxide" containing at least eighty-five (85%) percent vanadium pentoxide (V_2O_5) which said material shall be crushed to ten (10) mesh or less, and shall contain a minimum of sodium (Na_2O).

3. Continental agrees upon the delivery of the product as hereinafter provided that it will pay to Blading the current market price for the material which is presently fixed by the parties and which shall remain until further notice One and 10/100 ($1.10) Dollar per pound vanadium pentoxide contained, delivery including packaging in either bags or drums, at the election of Continental, which said bags or drums shall be returned by Continental to Blading with freight charges collect.

4. The price of One and 10/100 ($1.10) Dollar per pound vanadium pentoxide is based upon two (2%) percent sodium (Na_2O) and such price will be increased or decreased for any sodium (Na_2O) above or below two (2%) percent, with pro rata adjustment for fractions.

5. The parties hereto agree that the present price of ferro vanadium based on present market quotations per pound of vanadium contained is as follows:

Defendant V Exhibit No. "2-K"—(Continued)

Open Hearth Grade	$2.70
Crucible Grade	$2.80
Primos Grade	$2.90

In the event that Continental by reason of competitive conditions in the market for ferro vanadium shall find it necessary to reduce these prices and that in consequence of such reduction the net profit of Continental shall be less than five (5%) percent, Blading undertakes that there shall be a corresponding reduction in the purchase price to the extent that it shall be necessary in order for Continental to make a net profit of five (5%) percent. Blading shall be entitled in its discretion to grant or refuse such price adjustments. In the event that such price adjustments shall be refused, Continental shall thereafter be released from the obligation to specify or to accept deliveries or to make payment for any additional quantities of vanadium pentoxide. In the event that after such reduction it shall be determined upon an actual sale of the product that the profit of Continental in connection with such deliveries upon which the price shall have been reduced is in excess of five (5%) percent, Continental shall in turn account to Blading for any excess over said five (5%) percent.

6. If at any time during the term of this contract Blading shall accumulate a quantity of vanadium pentoxide equivalent to two months production and Continental shall fail to specify or receive delivery thereof, from and after such period Blad-

Defendant V Exhibit No. "2-K"—(Continued)

ing shall be entitled to sell the amounts so accumulated and Continental shall be relieved from any liability or responsibility on account of any such deliveries as to which it shall not have specified or received delivery. The right of Blading to sell such quantities shall, however be conditional and they shall not be privileged to sell said vanadium pentoxide or any part thereof at a lesser price nor upon terms more favorable than Continental has indicated its willingness to pay therefor.

7. Blading hereby appoints Continental its exclusive sales agent for all other products excluding vanadium pentoxide but including vanadium, uranium, radium and other intermediary products as it shall or may product and/or the tailings from any such production or portion, and Blading undertakes and agrees to pay to Continental a commission of two and one-half (2½%) percent on the net price of the product, after all discounts. The net sales price in each case shall be the price f.o.b. Blading's plant at Cortez, Colorado or such other point or points of production as shall be selected by Blading. Such commission shall be paid monthly on or before the 10th day of the month following the month in which payment for shipments shall have been made.

8. In the event that Blading shall produce over a period of ..... months a quantity of fifty thousand (50,000) pounds vanadium pentoxide contained per month and it shall be apparent that

Defendant V Exhibit No. "2-K"—(Continued)

such production can be maintained over a reasonable period thereafter, Continental undertakes to construct a plant in the State of Colorado for the utilization of its process for the manufacture of ferro vanadium. In the event that such plant shall be erected by Continental, all ferro vanadium produced from such plant shall be sold by Continental and after Continental shall have paid the expense of such manufacture and deducted a reasonable amount for amortization and the sum of five (5%) percent upon the net sales price as profit, the balance received upon the sale of said product shall be paid to Blading.

9. Continental agrees to cooperate with Blading in connection with the production, refinement and manufacture of uranium and/or radium and/or intermediary products thereof and to put at the disposal of Blading all technical and engineering information and data in the possession of Continental with reference thereto and to consult with Blading with reference to the production and/or the metallurgical or chemical processes to be employed. Continental further agrees that it will at all times place at the disposal of Blading any and all information with reference to the production and sale of the products which it is authorized to sell as agent, and that Continental will report to Blading from time to time, as in the discretion of Continental it shall be necessary, all changes in market conditions and the development of new

Defendant's Exhibit No. "2-K"—(Continued)

sources of supply for raw materials and other information likely to be of assistance to Blading, and Blading agrees to communicate like information in its possession.

10. Blading undertakes and agrees to procure from its stockholders an undertaking that such stockholders will not sell or dispose of their shares or any part thereof or hypothecate or pledge the same without the consent of Continental, and that Continental shall be entitled to cancel the within contract upon such sale and shall be entitled to receive from each of said stockholders a sum equal to ( ) percent of the purchase price received by any such stockholder.

11. It is agrees that the term of this contract shall commence on the .... day of March, 1944 and shall continue for a period of twenty years thereafter.

In Witness Whereof Blading has caused these presents to be executed by its officers and Continental has hereunto set its hand and seal.

BLADING MINES COMPANY,

By .....

President.

.....

.....

.....

Defendant V Exhibit No. "2-K"—(Continued)

[Letterhead of Blanding Mines Company]

[Handwritten Note: Contract to be signed also by UTE Mining Co.]

Mr. Henry John Leir
Continental Ore Company
500 Fifth Avenue
New York, New York

March 24, 1944

Dear Mr. Leir:

We received the draft of contract prepared by your attorney and this morning we wired you as follows:

"Contract received—Some points need clarification. We suggest while these points are being discussed that you agree by letter to purchase our entire output up to 20,000 pounds vanadium pentoxide per month for period of nine months at price of $1.10 per pound contained of 85% grade or better less carload freight Utah shipping point to New York. Letter follows."

The proposed contract is somewhat different from what we discussed in Grand Junction and we desire the following points to be definitely covered, changed, or clarified, namely:

In paragraph No. 1 of your contract, the recital is "Continental undertakes". Throughout this contract we notice that Continental "undertakes", and in most instances, Blanding "agrees". Paragraph No. 1 also states that you will receive delivery of the entire output of vanadium as the same may

Defendant V Exhibit No. "2-K"—(Continued)

be specified from time to time for delivery. This is definitely objectionable and we insist that you agree to take our entire output up to 50,000 pounds of V_2O_5 contained. Of course, at the present time we can only make about 15,000 pounds per month and as per our conversation with you in Grand Junction, we realize that we will need financial assistance to increase the output above 15,000 pounds. Paragraph 1 is further objectionable in that the privilege is left with Continental to give notice that it will not accept delivery. If Continental would not accept delivery, we could only sell upon such terms and conditions as you have set forth. We believe the contract should be a contract in which you would unconditionally agree to buy and we agree unconditionally to sell, however, if you would desire or need some arrangements to cease buying, we believe that at least six months notice should be given. Of course, some other arrangements might be worked out for your protection in the event the market should decline to the point where you could not accept. The suggestion of six months notice if purely arbitrary and three months might be sufficient.

Paragraph 2 of your proposed contract recites that the material should be crushed to a No. 10 mesh or less. We believe that this should be changed to ¼", however, as per our conversation, if we find it practical and feasible to granulate the same to a No. 10 mesh or less, we will do so.

Defendant V Exhibit No. "2-K"—(Continued)

Paragraph No. 3 states that delivery shall be made in bags or drums at the election of Continental. It was our impression that you were to pay the return freight charges on the drums. If you are not willing to do this, we believe that we should have the right to elect whether it should be shipped in bags or drums.

As to Paragraph No. 4 in which you recite the 2% Sodium oxide (Na_2O), it was our understanding that this was to be based on Sodium (Na) and we now suggest that the minimum Sodium content be based upon our average sodium content in the fused black which we have made in the past. We believe that we can hold the Sodium to a minimum, however, we desire to ascertain what the Sodium content was in our former production before we could commit ourselves to hold it to an agreed minimum. After we had agreed upon the minimum, the pro-rated adjustments, either upwards or downwards, could easily be arrived at. In this connection, we submit that there is nothing in the proposed contract which clarified the adjustments which should be made.

Paragraph No. 5 states that the price is based on the present ferro vanadium price and you quote the three grades. We believe that this should be modified and be based upon the grade which you make and upon the price which you receive for such product. Paragraph No. 5 is definitely objectionable in regard to the 5% net profit to Continen-

Defendant V Exhibit No. "2-K"—(Continued)

tal. Since we have no guarantee as to our net profit, we believe that you should have no guarantee as to your net profit, as we have no control over your costs and it would be impossible for us to agree on a definition of your term "net profit". Likewise, all market policy is beyond our control.

Our objections to Paragraph 6 are included in our objections outlined in Paragraph 1.

As to Paragraph No. 7, we believe that uranium and radium and other intermediary products should be covered by separate contract and before we would endeavor to contract on those items, we would have to be informed of the market for such products so that we could ascertain whether or not it would be economically practical for us to make the change in the milling process to recover such other products and in what form we should recover them. In the event that we could economically recover such other products, we would have no objection to the 2½% commission. Of course, all points in connection with the sale of products other than vanadium should be further discussed when we are advised of the market price.

Paragraph No. 8 appears to be satisfactory except that no mention is made of the exact number of months that the 50,000 pound production should be required.

In Paragraph No. 9, we note that disclosure of certain information is reserved to the discretion of Continental. We believe that such reservation

Defendant V Exhibit No. "2-K"—(Continued)

should be eliminated. If you are our exclusive selling agent and broker, we should certainly receive all information concerning the market conditions, development of new sources, etc.

Paragraph No. 10 is objectionable in that until such time as you have some financial interest with us, that restriction should not be made concerning our transfer of stock. In addition to this, any of our stockholders should be able to sell to the remaining stockholders without any restriction whatsoever, although, if you desire some evidence of us not selling our stock to others, we would be willing to agree that the three major stockholders or their heirs will, during the continuance of this contract, maintain controlling interest in Blanding Mines Company. We feel this would give you all protection needed. Also, in the event of a transfer of any stock to other than a present stockholder, you would have the first right and privilege to buy said stock. In addition, if we agree along those lines, Continental Ore should rightfully agree that it will not sell its business.

It was our understanding in Grand Junction that if our concentration process was a success that you would be willing to assist us financially in increasing our production facilities. It occurs to us that this should be included in the contract.

As to the Association, we are somewhat at a loss to ascertain the correct procedure in organizing such an association. We are perfectly willing to

Defendant V Exhibit No. "2-K"—(Continued)

organize such an association but no member of our organization will accept the Presidency thereof. In addition, as you have been advised, Sitton is indifferent to our proposition. We had a verbal agreement with him in Grand Junction. When we attempted to reduce it to writing, we could not do so to his satisfaction. On or about the 12th day of March, he agreed that he would have an attorney of his choosing to meet with us immediately to discuss the matter further, and to date we have heard nothing more from him, consequently, we do not feel that Sitton should be further considered or consulted in the matter of this association. It also appears to us that at the present time there are only two independent producers, namely, Gateway and Blanding. We believe that other so-called "independent" producers are using suggestions outlined in Grand Junction for their benefit in negotiating for the sale of ore to major companies.

In my last conversation with Gardner, Gardner mentioned that he was in a hurry to get some sort of an organization. He didn't seem to care exactly what provisions were contained in the articles and the important thing being the organization. I told Mr. Gardner that if there was an organization that it should be a marketing organization so that any signor who produced ore would have to agree that when any other member of the organization desired to purchase his ore that he would do so at

Defendant V Exhibit No. "2-K"—(Continued)

the same price that the member was then getting. As a further precaution, that the sales price of all ore should be a matter of record with the association. This would thwart individual deals and we note that in the past that the selling price received for ore has usually been based upon the individual's dealing ability and not on the type of ore or a uniform market policy.

In connection with the association, we would like to have your ideas concerning the same in connection with the problems which I wrote to you about some days ago.

Very truly yours,

BLANDING MINES COMPANY,
/s/ By DAN MILENSKI.

DM:mp

Blanding Mines Company March 27, 1944
P. O. Box 895
Cortez, Colorado

Attention: Mr. Dan Milenski
Re: Vanadium

Gentlemen:

We are in receipt of your wire of March 24th, and after considering all angles, we feel that at the present time it would not seem advisable for us to enter into a contract as suggested by you, without the framework of an agreement as outlined in the draft we sent you.

Defendant V Exhibit No. "2-K"—(Continued)

We hope that you will understand our position. We believe that a straight purchase contract does not do justice to the general situation, which should be covered by the agreement that we now have under discussion.

We trust that in the near future you will be able to clarify the points which you say need additional thought.

Looking forward to hearing from you in this respect, we are

Very truly yours,

CONTINENTAL ORE COMPANY,
Henry J. Leir.

HJL:SG

[Letterhead of Continental Ore Company]

March 31, 1944

Blanding Mines Company of Utah
P. O. Box 188
Cortez, Colorado

Att. Mr. Dan Milenski
Re: Vanadium

Gentlemen:

Your letter of March 24 and ours of March 27 no doubt crossed in the mails.

Before entering into further details, we would like to make some general remarks so that you can properly appraise our situation:

When shipments on V_2O_5 from Utah and Colo-

Defendant V Exhibit No. "2-K"—(Continued)

rado decreased, and at a time when we needed them the most, we decided to make ourselves independent. We created equipment for the treatment of foreign vanadium ores and, frankly speaking, we are not in need of any material from Utah/Colorado today, unless we should want to expand our present business considerably.

We will buy from you only if you are willing to make a long-term contract with us which will protect our interests so that any changes we might make now in your favor (and to the detriment of our own conversion of foreign ores) would not prove harmful to our own interests one day.

As long as your output is only 15,000 pounds per month there are no particular difficulties with regard to our own outlets, but the moment you achieve a larger output, we would like to see an "association" created, because the "association" would give us a better standing in the marketing of the finished product.

The price must be based on the Na_2O contents because whatever Na_2O we have in the acid will absorb a like quantity of V_2O_5.

We would be willing to buy the material in full carloads, which would in turn enable you to make considerable savings on freight and packing. We would accept so-called asphalt laminated paper bags, which we can buy for you at about $100 per 1,000 delivered Utah, or 10c per bag. The bags can easily contain 100 pounds.

Defendant V Exhibit No. "2-K"—(Continued)

In giving you these advantages the 2% Na_2O basis which I mentioned in Grand Junction should be reduced to 1% Na_2O.

We believe that the above will show you our position in the matter, and we await your reaction before going further into the other details which, we are certain, can be worked out to our mutual advantage.

Very truly yours,

CONTINENTAL ORE COMPANY,
/s/ HENRY J. LEIR.
Henry J. Leir.

hjl/se

DEFENDANT V EXHIBIT "No. 2-L"

Henry John Leir
Continental Ore Co.
500 Fifth Avenue
New York, New York

March 24, 1944

Contract Received—Some Points Need Clarification. We Suggest While These Points Are Being Discussed That You Agree by Letter to Purchase Our Entire Output Up to 20,000 Pounds Vanadium Pentoxide Per Month for Period of Nine Months at Price of $1.10 Per Pound Contained of 85% Grade or Better Less Carload Freight Utah Shipping Point to New York. Letter Follows.
(Copy)

[Pencil Notes: 110 Price + or — Ferro Grade. Drums returned at his expense or ship in sacks. Furnish—¼" possibly finer Sodium—average in shipments to V.C.A. Uranium—Future Association —Articles.]

Defendant Vanadium Corporation Exhibit No. 2-A-

tatement of Considerations for Regulation No. 489

I. The Commodities

gsten, molybdenum, vanadium, cobalt and other alloying materials etals, covered by this regulation, are used primarily as alloying lients in the manufacture of iron and steel. Limited amounts are nsumed by the chemical and other industries. At the present time nsumption of these materials is restricted to war and essential n purposes.

ough these alloying materials have somewhat the same general each element serves a distinct and separate function in the manu- e of different alloy steels and other products. Each has its own r characteristics from a metallurgical standpoint and requires dif- methods of processing. A brief description of each is set out be-

gsten. As an alloying material, tungsten imparts qualities of ex- hardness and toughness to steels. It is one of the indispensable gents of high-speed tools, both in the tool steels and the carbides which they are manufactured. Such high-speed tools are essential rapid fabrication of war implements. Tungsten is also a vital ele- n steels used in the manufacture of certain types of armor-piercing tiles, armor plate, gun barrel liners and breeches, motor valves and seats and propeller blades. In the electrical and electronics field, en is essential for lamp, radio, radar and X-ray filaments, contact transformer cores, electrodes and precision control instruments. chemical field, tungsten has many uses as a catalyst, such as in anufacture of high octane aviation gasoline, and is also used in proofing cloth, in tanning leathers, and in many other chemical ses.

ough some of the tungsten consumed is charged into the steel bath form of ores and concentrates, the major portion of the tungsten nd concentrates is further processed into ferrotungsten, tungsten powder and tungsten compounds. Both in tonnage and dollar value, ungsten is by far the most important, about 70% of the ore and ntrates consumed in the United States being for this purpose. As oying material for high-speed and other steels, tungsten is chiefly in the form of ferrotungsten. Tungsten metal powder finds its pal use in the electrical and carbide fields, while the tungsten com- s are consumed principally by the chemical industry. The com- s are also intermediate products in converting the ore to the form tal powder.

ybdenum. Although it has come into use more recently than most other principal alloying elements, molybdenum has been widely used domestic steel industry during the past decade and has been of partic- mportance since the outbreak of the present war. This element has f the characteristics of tungsten; and, because of the relative scarcity latter, molybdenum has been widely substituted for it in the high- ontent tool steels. Molybdenum is also now being much used in the

t 1943 by F.R.P.

low-alloy National Emergency steels in combination with smaller amounts of the previously accepted alloys for these purposes, such as chromium and nickel. Molybdenum is used in the manufacture of virtually every type of alloy steel. It is usually introduced into steel in one of three forms—ferromolybdenum, calcium molybdate and molybdic oxide, the last being the form most generally used.

In addition, increasing amounts of molybdenum in the form of metal powder are being consumed in the electrical and electronics field; and molybdenum compounds have a diversity of uses in the chemical industry.

Vanadium. Vanadium is of prime importance as an alloying material in three general classes of steel products: (1) large forgings, castings and armor plates, (2) dies, taps and drills, and (3) high-speed tools. The vanadium content in these products is relatively low, running from 0.15% to 2.25%. Vanadium, however, has a greater effect than any other element in enhancing the tensile strength and hardness of steel without impairing its toughness. About 80% of the vanadium consumed is in the form of ferro-vanadium which is usually produced from vanadium pentoxide—an intermediate product processed from vanadium ores and concentrates. Very small amounts of concentrates are charged directly into the steel bath. In addition, vanadium in the form of compounds is used for catalytic and other purposes, and limited amounts are produced in the form of metal.

Cobalt. Cobalt is consumed commercially in the form of metal, oxides, hydrates and salts. Practically all the metal is cast into rondelles, with minor amounts being produced and sold in the form of granules, fines and powder. During the past few years the metallurgical uses of cobalt have increased many fold and it is estimated that over 90% of the United States consumption of cobalt is now used for these purposes. Prior to 1940, the principal uses of cobalt were in the non-metallurgical fields—for ceramics, protective coatings, inks and chemical purposes.

About 50% of the cobalt being consumed in this country currently is used in the manufacture of the stellite and carbide types of alloy which are used for high-speed cutting edges on machine tools. Cobalt gives to an alloy the ability to retain a sharp edge under extreme heat—a characteristic known in the industry as "hot-hardness." Cobalt is also used for this purpose in high-speed steels.

Stellite-type molten non-ferrous alloys are becoming increasingly important in the manufacture of certain types of aviation motor accessories and searchlight reflectors for the armed forces.

Another characteristic of cobalt is its magnetic qualities and it serves as an alloying material in the better magnet steels. Some of these steels contain as much as 35% cobalt.

Ferrophosphorus. Ferrophosphorus is an alloy of iron produced by smelting phosphate rock in electric furnaces. Almost the entire production currently is of the 23-26% phosphorus grade. Ferrophosphorus is added to steels used in the manufacture of thin steel sheets for containers and for galvanizing purposes. The addition of phosphorus to steel gives it brittleness and prevents cohesion when several sheets are rolled in one operation. In foundry operations, ferrophosphorus is also used for certain types of castings in order to assure fluidity.

wholesalers, manufacturers or producers of such commodity, and that this relationship subjects sellers at retail of such commodity generally to substantial hardship, should immediately communicate such information in writing to the Retail Trade and Services Division, Office of Price Administration, Washington, D. C., so that the Price Administrator may take appropriate action.

§ 1499.19 *Petitions for amendment.* Any person seeking a modification of any provision of this General Maximum Price Regulation, or an adjustment not provided for in § 1499.18 of this General Maximum Price Regulation, may file a petition for amendment in accordance with the provisions of Procedural Regulation No. 1 issued by the Office of Price Administration.

Definitions and Explanations

§ 1499.20 *Definitions and explanations.* This General Maximum Price Regulation, and the terms appearing therein, unless the content otherwise requires, shall be construed as follows:

(a) "Appropriate field office of the Office of Price Administration" means the district office for the district (or in the absence of such district office, the state office for the State) in which is located the seller's place of business from which his sales are made.

(b) "Appropriate War Price and Rationing Board" means the War Price and Rationing Board for the area in which is located the seller's place of business from which the cost-of-living commodities are offered for sale.

(c) "Commodity" includes commodities, articles, products, and materials and contracts to buy, sell, or deliver any of the foregoing, but does not include real property.

(d) "Delivered." A commodity shall be deemed to have been "delivered" during March 1942, if during such month it was received by the purchaser or by any carrier, including a carrier owned or controlled by the seller, for shipment to the purchaser.

(e) "Establishment" refers to the physical location of the store, shop or other place of business in which commodities or services are sold. Any such establishment shall be deemed to be selling at retail if it has an established practice of making sales at retail.

(f) "Mixed feed" includes a mixture or blend of more than one feed ingredient for the purpose of feeding animals, except a mixed feed resulting from the blending or mixing of offal from a single grain.

(g) "Most closely competitive seller of the same class". "Seller of the same class" means a seller (1) performing the same function (for example, manufacturing, distributing, retailing, processing, storing, installing, or repairing), (2) of similar type (for example, department store, mail order house, chain store, specialty shop, cut-rate store), (3) dealing in the same type of commodities or services, and (4) selling to the same class of purchaser. A seller's "most closely competitive seller of the same class" shall be a seller of the same class who (i) is selling the same or a similar commodity, and (ii) is closely competitive in the sale of such commodities, and (iii) is located nearest to the seller.

(h) "Offering price" means the price quoted in the seller's price list, or, if he had no such price list, the price which he regularly quoted in any other manner, except that in the case of sales of commodities by an establishment selling at retail, the offering price shall be the price at which the commodity was offered for sale at the immediate point of sale (for example, the shelves or counters). But "offering price" shall not include a price intended to withhold a commodity or service from the market, or a price offered as a bargaining price by a seller who usually sells at a price lower than his asking price.

(i) "Person" includes an individual, corporation, partnership, association, any other organized group of persons, legal successor or representative of any of the foregoing, and includes the United States, any agency thereof, any other government, or any of its political subdivisions, and any agency of any of the foregoing.

(j) "Price regulation" means a price schedule effective in accordance with the provisions of section 206 of the Emergency Price Control Act of 1942, a maximum price regulation or temporary maximum price regulation issued by the Office of Price Administration, or any order issued pursuant to any such regulation or schedule.

(k) "Purchaser of the same class" refers to the practice adopted by the seller in setting different prices for commodities or services for sales to different purchasers or kinds of purchasers (for example, manufacturer, wholesaler, jobber, retailer, government agency, public institution, individual consumer) or for purchasers located in different areas or for different quantities or grades or under different conditions of sale.

(l) "Raw and unprocessed agricultural commodity or greenhouse commodity". Commodities that are picked, harvested, thrashed, ginned, hunted, cleaned, baled, boxed, packed, transported, and/or refrigerated, without more, remain "raw and unprocessed". But operations such as slaughtering, freezing, drying, canning, preserving, milling, crushing, straining, centrifuging, shelling of peanuts, and purifying with heat, constitute processing for this purpose. For purposes of this General Maximum Price Regulation, flowers, seeds, and bulbs shall be agricultural or greenhouse commodities. Forest products, such as lumber and naval stores and mineral products, whether processed or unprocessed, shall not be deemed to be agricultural commodities.

(m) "Records" includes books of account, sales lists, sales slips, orders, vouchers, contracts, receipts, invoices, bills of lading, and other papers and documents.

(n) "Replacement cost" shall be the net price paid by the seller after May 18, 1942, or the net price which the seller would have to pay to replace such commodity after such date.

(o) "Sale at retail" or "selling at retail" means a sale by selling to an ultimate consumer other than an industrial or commercial user, except that for the purposes of § 1499.4 of this General Maximum Price Regulation a "sale at retail" shall not include any sale by a producer, manufacturer, or fabricator of any commodity produced, manufactured, or fabricated by him.

(p) "Sale at wholesale" means a sale by a person who receives delivery of a commodity and resells it, without substantially changing its form, to any person other than the ultimate consumer.

(q) "Securities" includes any note, stock, bond, and interest or instrument commonly known as a "security".

(r) "Sell" includes sell, supply, dispose, barter, exchange, lease, transfer, and deliver, and contracts and offers to do any of the foregoing. The terms "sale," "selling," "sold," "seller," "buy," "purchase" and "purchaser," shall be construed accordingly. Nothing in this General Maximum Price Regulation shall be construed to prohibit the making of a contract to sell a commodity or service at a price not to exceed the maximum price at the time of delivery or supply.

(s) "Seller" includes a seller of any commodity or service. Where a seller makes sales or supplies services through more than one selling unit, other than salesmen making sales at uniform prices, each separate place of business of the seller shall be deemed to be a separate seller, except that for the purposes of § 1499.18 of this General Maximum Price Regulation, the owner of the business shall be considered the seller regardless of the number of separate places of business he owns.

(t) "Service" includes any service rendered or supplied, otherwise than as an employee, in connection with the processing, distribution, storage, installation, repair, or negotiation of purchase or sale of a commodity, and generally, without limiting the foregoing, all services which reserve or add to the value or utility of a commodity.

(u) "Supplied". A service shall be deemed to have been "supplied" during March 1942, if during such month it was completed or in process.

Other Price Regulations, Applicability, Effective Date

§ 1499.21 *Effect of other price regulations.* This General Maximum Price Regulation shall not apply to any sale or delivery for which a maximum price is in effect, at the time of such sale or delivery, under the provisions of any other price regulation issued, or which may be issued, by the Office of Price Administration.

§ 1499.22 *Applicability.* The provisions of this General Maximum Price Regulation shall be applicable to the United States, its territories and possessions, and the District of Columbia.

§ 1499.23 *Effective date.* All the provisions of this General Maximum Price

r Alloys and Metals. In addition to the alloying elements discussed this regulation covers a number of special alloys, known in the trade xidizers, intensifiers or purifiers.

special alloys usually represent a combination of a number of ele- such as vanadium, boron, manganese, zirconium, and aluminum com- frequently with silicon. Each of the various combinations marketed carries its own brand name, and is produced by only one manufac- The addition of these special alloys to steel produces results some- ifferent from those obtained by the use of the various contained ele- separately. Their use in the combination provided by the special is desirable in certain types of steel.

II. The Industries

output of each of the commodity groups covered by this regula-, to a great exten', accounted for by different producers and proc-, although certain companies produce more than one commodity In some cases companies are completely integrated from ore sup- end products, while a number of companies limit their operations to mining minerals containing the elements or to processing the alloys, metals and compounds. In no case does any one company in the production of all of the commodities covered by this regu- Accordingly, it is in order to describe briefly each industry.

gsten. Approximately one-half of the tungsten ores normally con- during peacetime in the United States is domestically produced. alance being imported from distant sources, the most important of are China, British Malaya, Bolivia, Australia, Argentina, Mexico, nd Thailand.

roximately thirty concerns are producing tungsten ores and con- tes in appreciable quantities in this country. Three firms account ore than three-fourths of current production; the other producers igher costs and their output is currently sold to the Metals Reserve any at prices above the world market prices.

ddition, the Metals Reserve Company serves as the government iling agency for all imported ores as well as certain other domes- produced ores. The sale of ores so stockpiled by the Metals Re- Company accounts currently for approximately three-fourths of the ten ores and concentrates consumed. The sale of such ores and ntrates is at prices approved by the Office of Price Administration.

gsten ores and concentrates are processed in one or more forms by twenty concerns and are charged directly by about ten steel com- . Two companies are responsible for the entire production of fer- gsten and these companies also produce metal powder and com- s. The major portion of the metal powder is produced for their onsumption by companies engaged in the manufacture of electrical, and electronics material and equipment. The metal powder is sin- to ingots and swaged and drawn to wire and rods for these uses. dition, these producers also supply metal powder for the manufacture rbides and other materials. Limited amounts of metal powder and ounds, which are used primarily for processing into metal powder, oduced by small, independent firms.

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¶ 33w. *Tungsten, Molybdenum, Etc.* (Reg. No. 89)

Very little integration exists in the tungsten industry. Only two processors of ores and concentrates own or control tungsten mining properties which are capable of supplying an appreciable amount of the ores and concentrates consumed. In general the processors as well as the three major producers of ores and concentrates are in a favorable financial position.

Sufficiently detailed information on the production of ferrotungsten, tungsten metal, tungsten carbide powders and compounds for years prior to the outbreak of the present war is not available to estimate the value of their total output. However, a very substantial increase over peacetime production has been accomplished, and it is estimated that the 1943 combined value of tungsten products and ores and concentrates consumed will exceed $95,000,000. The average annual value of ferrotungsten alone produced during 1936–40 was about $6,000,000, and the aggregate value of the ores and concentrates consumed for the period averaged about $6,525,000 per year.

Molybdenum. The United States is the world's major source of molybdenum, accounting for about 90% of the world output during the period 1936–40. Prior to the outbreak of the present war, about 70% of the domestic production was exported. At the present time exports are limited to those handled through the Office of Economic Warfare, the Office of Lend-Lease Administration and to Canada through the War Production Board. Limited amounts of ores and concentrates are being imported mainly for government stockpiling purposes.

The domestic molybdenum industry is integrated in large measure. One company which accounts for about 70% of the total production of ferromolybdenum, calcium molybdate, molybdic oxide and other compounds and metals, owns and operates the mine from which its concentrates are obtained. The remaining concentrates produced in this country are obtained largely as a by-product of copper mining operations. Most of the concentrates so obtained are processed by two other companies, one a steel producer and one a producer of other alloys. Small quantities of molybdenum compounds are also produced by ten additional companies. All major factors in the industry are in a favorable financial position.

The average annual value of domestic mine shipments of molybdenum ores and concentrates for the period 1936–40 was $17,965,000. Similar data are not available for the value of the output of molybdenum products. The expansion in production and consumption of molybdenum as a result of war demands has been one of the notable developments in the alloy field. The combined value for 1943 of molybdenum products produced and ores and concentrates consumed is estimated to exceed $95,000,000.

Vanadium. In its mineral form vanadium is derived from two main sources. About 35% of the vanadium ores and concentrates consumed in this country are of Peruvian origin and domestic vanadium ore deposits furnish most of the remaining 65%. Minor amounts of vanadium are obtained from flue dust, from boilers burning Venezuelan fuel oil, from phosphate rock mined in Idaho and from a complex gold-silver-lead-molybdenum-vanadium ore mined in Arizona. A little lead vanadate ore is imported from South Africa.

The ore and concentrates are generally roasted and leached into vanadium pentoxide, which, by electric furnace reduction, is converted into ferrovanadium. Virtually 100% of the production of ferrovanadium is in the

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Defendant Vanadium Corporation Exhibit No. 2-M--(Continued)

Regulation shall become effective on May 11, 1942, except that:

(a) The provisions of this General Maximum Price Regulation, other than § 1499.11 (a), shall not apply to establishments selling at retail until May 18, 1942;

(b) The provisions of §§ 1499.1 and 1499.2 shall not apply to any sale of services at retail until July 1, 1942; and

(c) The provisions of § 1499.11 (a) shall become effective upon the date of issuance of this General Maximum Price Regulation.

Issued this 28th day of April 1942.

LEON HENDERSON,
Price Administrator.

§ 1499.26 *Appendix A: General Maximum Price Regulation—Report of maximum price determined under § 1499.2 (a).*

To: Office of Price Administration
From .....
Name
.....
Address

The undersigned hereby reports its determination, made in according with § 1499.2 (a) of the General Maximum Price Regulation, of the maximum price for the commodity described in Item 1 below.

1. Brief description of commodity for which a maximum price is reported:
.....
.....
.....

2. Reasons why price could not be determined on the basis of a same or similar commodity dealt in by the undersigned or a competitive seller during March 1942:
.....
.....
.....

3. (a) General classification in which the undersigned classes the commodity for which maximum price is reported.....
.....

(b) Name of comparable commodity in this general classification and price range of which the undersigned delivered the largest number of units during March 1942 (referred to herein as "comparable commodity").....
.....

4. The maximum price reported was determined from calculations A, B, and C below, in accordance with instructions printed in § 1499.26, Appendix A, of the General Maximum Price Regulation:

A. Comparable Commodity:

Col. (1) Name	Col. (2) Unit of pricing	Col. (3) Replacement cost per unit	Col. (4) Maximum price per unit	Col. (5) Percentage (col. 4 divided by col. 3)
Example: Commodity X.....	Each	$4.00	$5.00	125

B. Cost per unit of commodity for which maximum price is reported.....

C. Maximum price reported per unit.....

(Item 4B multiplied by percentage, Item 4A, Col. 5)

I swear (or affirm) that to the best of my knowledge and belief, the above statements are true.

.....
(Sign)

.....
(Address)

Instructions

Section 1499.2 (a) of the General Maximum Price Regulation provides for the determination of a maximum price by a seller for commodities which cannot be priced under the provisions of § 1499.2. Any seller who has determined a maximum price under § 1499.2 (a) is required, within 10 days after such determination, to report such price to the appropriate field office of the Office of Price Administration.

The following instructions must be followed in completing this form:

Item 1. Name the commodity for which the price is reported; indicate its use, unit, size, package, etc.

Item 2. Indicate how commodity for which price is reported differs from other commodities sold by seller, or competitive sellers of the same class, during March 1942.

Item 3. (a) Insert general classification (food, hardware, clothing, etc.), in which the seller classes the commodity for which a maximum price is reported.

(b) Insert the name of comparable commodity in the same general classification and price range of which the seller delivered the largest number of units during March 1942.

Item 4-A. Column 1: Name of comparable commodity.

Column 2: Insert unit of pricing, e. g., pound, quart, garment, etc.

Column 3: Insert replacement cost per unit. Replacement cost shall be net price[1] per unit paid by the seller after May 18, 1942, or the net price which the seller would have to pay to replace the comparable commodity after such date.

Column 4: Insert the maximum price per unit established in accordance with § 1499.2 of General Maximum Price Regulation.

Item 4-B. Insert *net cost*[1] per unit of commodity for which price is reported.

Item 4-C. Calculate maximum price reported per unit as follows: Multiply unit cost (4-B) by percentage (4-A, column 5).

§ 1499.26 *Appendix B: Commodities designated by the Price Administrator as cost-of-living commodities.*

Note: For the commodity classifications marked by asterisks, maximum prices may be posted by price-lines at the place in the business establishment where the commodities are offered for sale, provided that, in addition, the selling price of each commodity in such classification shall be marked on the commodity itself.

See § 1499.12 of this General Maximum Price Regulation.

TOBACCO, SEEDS, TOILETRIES, AND SUNDRIES

(All brands, grades, and sizes, except where otherwise indicated)

Tobacco:
Cigarettes
Smoking tobacco, in cans and packages.
Packaged household drugs:
Aspirin tablets.
Milk of magnesia, liquid.
Cod liver oil, liquid.
Epsom salts.
Packaged household drugs—Continued.
Boric acid.
Castor oil and mineral oil.
Witch-hazel and rubbing alcohol.
Toiletries and sundries:
Hand and toilet soaps.
Dentifrices (paste, powder, and liquid).
Shaving cream.
Toothbrushes.
Sanitary napkins.
Razor blades.
Facial tissues.
Infants' food: All types.
Ice cream: Bulk and packaged.

APPAREL AND YARD GOODS

Men's and boys clothing:
*Suits, business and sport.
*Overcoats, topcoats, and raincoats, business and sport.
*Trousers and slacks, dress, sport, and work.
*Men's shirts, other than formal.
*Pajamas and nightshirts, cotton, wool, and part wool.
Shorts, cotton.
Undershirts, cotton knit.
Union suits.
*Hosiery, other than pure silk and pure wool.
*Felt hats.
Work shirts.
Work pants.
Overalls and coveralls.
Sweaters.
*Mackinaws.
*Jackets, boys' only.
Men's work gloves.
Boys' gloves and mittens.
Boys' blouses and shirts.
*Boys' snow suits.
Women's and girls' clothing:
*Coats, untrimmed and fur-trimmed, sport and dress.
*Suits.
*Dresses, street and house.
*Hosiery, including anklets.
*Panties and slips.
*Foundation garments and brassieres.
*Women's gloves, children's gloves and mittens.
Skirts
*Blouses and shirts, tailored, rayon or cotton.
Sweaters.
*Nightgowns and pajamas, other than silk.
*Robes and house coats, flannel and cotton.
*Children's overalls, slacks, sunsuits and shorts (cotton only).
*Children's snow suits.
*Children's jackets.
Infants' clothing:
Diapers.
Dresses, other than silk.
Shirts.
Binders.
Sleeping garments.
Coats, cotton, wool, part wool.
Snow suits.
Sweaters.
Sunsuits (cotton only).
Yard goods:
Cotton yard goods.
Rayon yard goods.
Wool and mixtures of wool.
Footwear:
*Street, work, dress, and sport shoes for men, women, and children.
Infants' shoes.
Rubber footwear.

FOOD AND HOUSEHOLD SUNDRIES

Meat

Fresh beef:
Rib roast.
Chuck steak.
Top round steak.
Rump roast.
Chuck roast.
Beef liver.
Ground round steak.

[1] "Net price" (or "net cost") shall be the price paid after deducting all discounts allowed to, and adding transportation and delivery charges paid by, the seller.

Defendant Vanadium Corporation Exhibit No. 2-M--Continued)

hands of two companies with plants at Columbiana, Ohio, Bridgeville, Pennsylvania, Niagara Falls, New York and Alloy, West Virginia. Three grades are produced: open hearth, crucible and primos. Eleven companies produce vanadium pentoxide and the vanadium compounds and metal are produced by the same companies who produce ferrovanadium. In addition, some compounds are also produced by one other concern.

A high degree of integration exists in the vanadium industry. The largest producer of ferrovanadium owns the Mina Ragra in Peru which is its major source of raw materials. The other producer obtains its ores from domestic mines owned by an affiliated company. Both companies are in a favorable financial position.

In tonnage and dollar value vanadium production is not large in comparison with other alloys, but in value per pound it is the highest of the major alloys, averaging $2.80. During 1936–40 ferrovanadium production showed an average annual value of $3,495,000 while the average annual value of pentoxide production for the period was about $2,750,000 and ores and concentrates consumed was about $1,515,000. This rate of production has been expended very substantially due to war demands. For 1943 it is expected that the combined value of ferrovanadium, pentoxide and ores and concentrates will exceed $22,000,000.

Cobalt. The United States has been almost entirely dependent on imports for its supply of cobalt in the past. Prior to the outbreak of the present war the major portion of the cobalt imported was in the form of metal, oxides, salts and hydrates which were produced in Belgium from Belgium Congo ores and crudes. Less significant amounts of ores and crudes were and continue to be imported from Canada and converted to oxides and hydrates by one concern in this country. In addition, small amounts of metal, oxides and hydrates were produced by another company from domestically mined crudes. The production of metal by this concern has since been expanded.

When Belgium was occupied by Germany in 1940, the Belgium interests, which controlled the cobalt mining enterprise in the Belgium Congo, arranged for the importation of the crudes into this country and their conversion to metal, oxides, salts and hydrates by a number of American plants on a toll basis. At the present time about 90% of the production of cobalt products in the United States is produced in this manner. This operation may be described as being fully integrated and under foreign control.

The average annual value of imports of cobalt metal, oxides, salts and hydrates for the period 1936–40 was $2,212,000; and the average annual value of ores and crudes for the same period was $775,000. These compare with an estimated 1943 combined value of more than $19,000,000 for metal, oxides, salts and hydrates produced in the United States and for ores and crudes imported.

Other Alloys and Metals. Several of the companies regularly producing the major alloys also produce combination alloys classified by this regulation as special alloys. As indicated above these materials are usually sold under brand names and are, in some instances, patented products. Calcium metal, until the outbreak of the present war, was imported from France, but now one company in this country supplies all of the American requirements.

Ferrophosphorus, the production of which is relatively small, is currently being produced by two chemical companies and the Tennessee Valley Authority.

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III. Price History

Although materials containing tungsten, molybdenum, vanadium, cobalt and other alloys and metals have been characterized by relative price stability in recent years, the price movement in each group has been largely independent of the others because different cost factors are involved in the production of each and because their interchangeability in consumption is limited.

A brief resumé of the price history of each of the major items for which specific dollars-and-cents maximum prices are provided by the regulation is set forth below.

Tungsten. Of all the commodities covered by this regulation, the price of ferrotungsten has been the most volatile. Prior to World War I, ferrotungsten sold at a base price of about $1.00 per pound of contained tungsten. Due to the pressure of demand and scarcity of supply, prices advanced sharply to a reported high of $8.50 in 1916, receding thereafter to a yearly average of $2.30–$2.40 in 1917–18.

Following the war the price returned to the levels prevailing prior thereto, the low point in the monthly average during the Twenties being $.59 in 1921, and the high $1.33 in 1929. From 1929 to 1936, the yearly average price fluctuated from $1.04 to $1.40. The price from 1937 through October 1939, ranged from $1.35 to $2.25 and the yearly average price for 1940 was $1.97.

The average quoted price for the first ten months of 1941 was $1.95, and in the fall of that year the price was reduced to $1.90 by informal agreement of the producers with this Office, effective November 1941. This level was subsequently frozen by the General Maximum Price Regulation, issued April 28, 1942, and has prevailed up to the present time.

Molybdenum. The current prices of principal molybdenum products are at the same level which has prevailed since 1932, namely,

Ferromolybdenum	—95 cents per pound molybdenum
Molybdic Oxide	—80 cents " " "
Calcium Molybdate	—90 cents " " "

Prior to 1932, there was a gradual reduction in prices from the World War I high of $5.00 per pound for ferromolybdenum. (The use of molybdic oxide and calcium molybdate was not developed until the middle Twenties.) By 1925 the price of ferromolybdenum had dropped to $1.50 per pound and calcium molybdate was first offered commercially during that year at $1.27 per pound of molybdenum contained. By 1928, the year when molybdic oxide was first offered commercially, the prices were:

Ferromolybdenum	—$1.20 per pound molybdenum
Calcium Molybdate	— .95 " " "
Molybdic Oxide	— .95 " " "

Approximately the above level continued until 1931 when the prices were reduced 20 cents on ferromolybdenum, and 10 cents on the other two products. Another reduction of 5 cents was made in 1932 to the current levels.

Vanadium. The current base prices of ferrovanadium and vanadium pentoxide have remained unchanged since 1934. By informal agreement of the producers with this Office during the fall of 1941, these prices were not

to be advanced without prior notice to this Office. On issuance of the General Maximum Price Regulation on April 28, 1942, they became the ceiling prices for the commodities.

The World War I high reported for ferrovanadium was $8.00 per pound of contained vanadium. During the Twenties the quoted prices were well above $3.00 per pound. In 1931 the contract prices were $3.15, $3.25 and $3.40 for the three grades. These were reduced in 1932 to $3.05, $3.15 and $3.30 and to $2.60, $2.70 and $2.80 in 1933 and the present prices were established in 1934.

Cobalt. The base price of $1.50 per pound for cobalt metal in the metallurgical industry has prevailed since October 26, 1939, at which time the price was increased from $1.36. The latter price was for imported cobalt metal and had been in effect since September of 1937. This Office is informed that the increase of about 10% was made to cover higher costs involved in the production of the metal in the United States as compared to costs in the Belgium plants where the metal had been produced previously and to cover increases in ocean transportation costs on ores and crudes. This base price of $1.50 became the ceiling price upon issuance of the General Maximum Price Regulation. Cobalt metal for metallurgical uses accounted for over 80% of the total cobalt consumed in the United States in 1942.

The prices of cobalt metal and cobalt oxides were originally established when by far the largest part of the supply was consumed in the ceramic and chemical industries. The present prices of cobalt oxides still reflect this condition but the price of $1.50 per pound for cobalt metal for metallurgical use represents a concession on the part of the producers in the price of the metal to increase the metallurgical consumption of their product.

Other Alloys and Metals. Data on the price history for special alloys and metals are not available for any extended period of time because most of these materials have been developed during recent years. This Office is informed that no major changes in prices have been made by the producers since their production was first undertaken in commercial quantities. Maximum prices prescribed by this regulation are the same as those established under the General Maximum Price Regulation, except for Simanal and Calcium Metal, the prices of which have been reduced by the producers.

The base prices of ferrophosphorus set forth in this regulation as maxima, i. e., $75.00 and $58.50 per gross ton for the 23-25% and 17-19% grades, respectively, have been in effect since January 1, 1936. In the six-year period from 1930 to 1936 prices were somewhat lower, having receded from a 1929 level of $122.50 and $91.00.

IV. Necessity for Regulation

As stated above, tungsten, molybdenum, vanadium, cobalt, and other alloys and metals are subject to the provisions of the General Maximum Price Regulation. The issuance of a specific price regulation with dollars-and-cents ceilings on principal items will serve to define more clearly the maximum prices for the principal types and grades of these alloying materials and to make these prices better known to consumers. A more satisfactory administration of price control by this Office is thereby made possible and compliance by both buyers and sellers will be facili-

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tated. Moreover, a specific price regulation affords more direct and positive control and, at the same time, provides a more flexible basis for adaptation of control to meet any contingencies which may arise as a result of the war effort.

Although this regulation is not issued for the purpose of initiating any significant changes in ceiling prices for the materials covered now provided by the General Maximum Price Regulation, nonetheless, certain minor price inequities which prevailed during March 1942 and were frozen by that regulation are corrected.

V. Justification of Provisions of Regulation

A. Coverage

This regulation is applicable to all sales and deliveries within the continental United States of tungsten, molybdenum, vanadium, cobalt alloying materials and the special alloys listed.

The importation of processed materials covered by the regulation is exempted from control but their resale in the United States is subject to the same maximum prices as domestically produced materials. In normal times, the importation of tungsten, molybdenum, vanadium, and other alloys and metals in processed form is extremely limited. Instead, this country imports the ores and concentrates which are processed here. Since the outbreak of the war, the imports of ores and concentrates have, as stated above, increased substantially. On the other hand, importation of the processed materials had virtually ceased during the first six months of the current year, as well as in 1942. In the case of cobalt, this element is now being imported almost entirely in the crude form for conversion to metal, oxides, salts and hydrates by plants in the United States.

The only imports of cobalt products in 1942, and thus far in 1943, have been from Canada in the form of metal. These imports have been by the major factor in the industry which imports cobalt crudes from the Belgian Congo for conversion. Most of such conversion to metal consumed in this country takes place in domestic plants. However, limited amounts are converted in Canadian plants and the metal is imported by this firm. Metal so imported has customarily sold at the same price as metal domestically produced.

It is believed appropriate to place ceiling prices on any processed material that may be imported and resold in the United States at some future date at the same levels as domestically produced materials because there is little prospect of imports in appreciable volume and because it is doubtful that the need for a higher price could be demonstrated should the volume of imports increase.

Under this regulation ores and concentrates are specifically exempted from price control. The provisions of the General Maximum Price Regulation, as amended, exempt ores and concentrates, both imported and domestic. It is believed that no useful purpose will be achieved through the establishment of ceiling prices on ores and concentrates containing the elements covered by this regulation. This is believed true for the reason that in the cases of molybdenum, vanadium and cobalt a high degree of integration exists between the mining, milling and smelting operations. In the case of tungsten, about three-fourths of the new supply

(Defendant Vanadium Corporation Exhibit No. 2-M--Continued)

s and concentrates is now under the control of the Metals Reserve ny through its stockpiling activities. An agreement has been d between this Office and that company as to appropriate prices material in sales to the consumers. Because such prices have been hed and are well known to consumers, a de facto stabilization has been olished and no need for a regulation exists.

B. Prices

maximum prices established by this regulation conform, in general, prices which prevailed during March 1942 and were frozen by the l Maximum Price Regulation. Some relatively minor changes are discussed below, have, however, been effected in such prices. vel of prices for these commodities which prevailed dur e March as, in the light of experience of both producers and c sumers, to be generally fair and equitable. Production since that date panded very substantially. Although unit costs of production are d to have increased, reducing somewhat the unit profits below el of March 1942, the larger volume of output has permitted pro to show satisfactory total profits. On the other hand, it would ap- om reports concerning their earnings since March 1942 that pres- ces have not subjected consumers to any hardship.

ific dollars-and-cents maximum prices are set forth for those com- r in each element group which represent the major portion of ales and for which uniform prices can readily be established on is of past industry practice.

maximum prices for the remaining items are the highest prices at the seller sold or offered for sale such materials during January, ary or March 1942 to a purchaser of the same class. In substance the same basis of price control as that provided by the General um Price Regulation, except that the "freeze period" is extended first quarter of 1942 rather than limited to the month of March. of some of these commodities so covered have been made infre- . Hence, a longer base period will facilitate the determination of prices by certain sellers. Price differences for some of the com- and metals have existed in the past due to differences in analysis nufacturing methods and the freeze technique permits a continua- these differentials which are based on trade practice. Provision e to facilitate the determination of maximum prices for new com- s and those not sold during the freeze period.

ng the minor variations in dollars-and-cents maximum prices pro- by this regulation is the price for ferrotungsten in quantities of pounds and over. Heretofore, one producer's price schedule set base price of $1.90 per pound of contained tungsten for carload ntities, with a differential of $0.05 per pound higher for quan- of less than a carload down to 10,000 pounds. The base price for her producer was $1.90 for any quantity of 10,000 pounds or more. ver, because of the relative scarcity of ferrotungsten, the War Pro- n Board finds it necessary from time to time to allocate less than l lots so that the carload lot buyer might be required to pay a m even though he were willing to purchase a full carload. For ason, and also for the reason that many shipments of ferrotungsten

are or can be made by truck, it is believed appropriate to establish the maximum base price on quantities of 10,000 pounds rather than on car load lots. This reduction has been agreed to by the producer involved.

Another variation in price from that prevailing during March 1942, is the price provided on sales of a special grade of tungsten metal powder by Cleveland Tungsten, Inc. of Cleveland, Ohio. The maximum price provided by this regulation is identical to that established by Order No. 77 under Section 1499.3(b) of the General Maximum Price Regulation. Similarly, The S. W. Shattuck Chemical Company of Chicago, Illinois is permitted to sell technical grade tungstic oxide at a price higher than prevailed in March 1942 by Order No. 5 under Section 1499.75(a)(4) of Supplementary Regulation No. 15 of the General Maximum Price Regulation. The reasons for these exceptions are set forth in the opinions accompanying those orders.

Still another variation in maximum prices from those which existed in March 1942, is that provided for Simanal. One of the principal constituents in its manufacture is aluminum and the sole producer of Simanal has reduced its price below the March 1942 level to reflect the recent reduction in aluminum ingot prices. The maximum prices for Simanal set out in the regulation, at the producer's request, conform with these current prices.

The prices for Calcium Metal have been revised recently. Until war threatened in Europe Calcium Metal had been produced only in France. Foreseeing an interruption in the flow of material from France, a ferro alloy producer began experiments in this country with the result that this domestically produced product entered the commercial market in the summer of 1939. Prices, established to compete with the imported product, had no relation to experience in the production of this material. When importation ceased, the War Production Board found it necessary to place Calcium Metal under strict allocation. Production increased to a point which permitted the restrictions to be relaxed and recently to be removed entirely. The sole producer has submitted a revised schedule of prices rationalized with present production. While this schedule increases the price from $1.75 to $1.80 per pound in one quantity bracket, an even greater rate of decrease is afforded all other quantities. The removal of allocation gives the buyer the option of purchasing quantities at more favorable prices. A substantial allowance for freight charges, not previously in effect, is also included in the revised prices.

Finally, the price of technical grade molybdic oxide sold and produced in small amounts by one minor producer, which was frozen at the March 1942 level under the provisions of the General Maximum Price Regulation, is slightly below the maximum price so established for the major producers. This regulation raises this producer's maximum price to that generally prevailing and thereby removes a possible inequity occasioned by the issuance of the General Maximum Price Regulation.

C. Other Provisions

Sales for laboratory and experimental purposes are exempted from price control by this regulation because such sales are of little significance either in volume or in their impact on the price structure of manufactured commodities for which the commodities covered by this regu-

Chapter XI—Office of Price Administration

PART 1499—COMMODITIES AND SERVICES

GENERAL MAXIMUM PRICE REGULATION

FINDINGS OF THE PRICE ADMINISTRATOR

Maximum Prices

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1499.25 Appendix B. Commodities designated by the Price Administrator as cost-of-living commodities.

Findings of the Price Administrator

In the judgment of the Price Administrator the prices of commodities and services generally have risen and are threatening further to rise to an extent and in a manner inconsistent with the purposes of the Emergency Price Control Act of 1942.

In the judgment of the Price Administrator the maximum prices established by this General Maximum Price Regulation, which apply with certain exceptions to all commodities and services not otherwise subject to regulation, are generally fair and equitable and are necessary to check inflation and to effectuate the purposes of the Act.

So far as practicable the Price Administrator gave due consideration to prices prevailing between October 1 and 15, 1941, and to relevant factors of general applicability. So far as practicable the Price Administrator consulted with representatives of trade and industry.

A statement of the considerations involved in the issuance of this General Maximum Price Regulation is issued simultaneously herewith.[1]

Therefore, under the authority vested in the Price Administrator by the Emergency Price Control Act of 1942, this General Maximum Price Regulation is hereby issued.

Maximum Prices

NOTE: The meaning of certain provisions and terms of this General Maximum Price Regulation is further explained and defined in § 1499.20. The explanations and definitions are set forth in alphabetical order. The terms explained and defined are underlined the first time they appear in the text.

§ 1499.1 *Prohibition against dealing in commodities or services above maximum prices.* On and after the effective date of this General Maximum Price Regulation, regardless of any contract or other obligation:

(a) No *person* shall *sell* or deliver any *commodity*, and no person shall sell or supply any *service*, at a price higher than the *maximum price* permitted by this General Maximum Price Regulation; and

(b) No person in the course of trade or business shall buy or receive any commodity or service at a price higher than the *maximum price* permitted by this General Maximum Price Regulation.

§ 1499.2 *Maximum prices for commodities and services: General provisions.* Except as otherwise provided in this General Maximum Price Regulation, the *seller's* maximum price for any commodity or service shall be:

(a) *In those cases in which the seller dealt in the same or similar commodities or services during March 1942:*

The highest price charged by the seller during such month—

(1) For the same commodity or service; or

(2) If no charge was made for the same commodity or service, for the similar commodity or service, most nearly like it; or

(b) *In those cases in which the seller did not deal in the same or similar commodities or services during March 1942:*

The highest price charged during such month by the *most closely competitive seller of the same class*—

(1) For the same commodity or service; or

(2) If no charge was made for the same commodity or service, for the similar commodity or service most nearly like it.

"Highest Price Charged During March 1942"

For the purposes of this General Maximum Price Regulation, the highest price charged by a seller "during March 1942" shall be:

(a) The highest price which the seller charged *for* a commodity *delivered* or service *supplied* by him during March 1942; or

(b) If the seller made no such delivery or supplied no such service during March 1942 his highest *offering price* for delivery or supply during that month.

No seller shall change his customary allowances, discounts or other price differentials unless such change results in a lower price. The "highest price charged" shall be a price charged during March 1942 to a *purchaser of the same class*. But if during March 1942 a seller (1) had an established practice of making allowances, discounts or price differentials to different classes of purchasers, and (2) raised his general level of prices, but thereafter during March 1942 made no delivery to any purchaser of a particular class he shall, for that particular class of purchasers calculate the highest price charged by taking the highest price charged during March 1942 to a purchaser of another class and then adjusting such price to reflect his established allowances, discounts and price differentials. No seller shall require any purchaser, and no purchaser shall be permitted, to pay a larger proportion of transportation costs incurred in the delivery or supply of any commodity or service, than the seller required purchasers of the same class to pay during March 1942 on deliveries or supplies of the same or similar types of commodities or services.

"Similar Commodities or Services"

One commodity shall be deemed "similar" to another commodity, if the first has the same use as the second, affords the purchaser fairly equivalent serviceability, and belongs to a type which would ordinarily be sold in the same price line. In determining the similarity of such commodities, differences merely in style or design which do not substantially affect use, or serviceability, or the price line in which such commodities would ordinarily have been sold, shall not be taken into account. One service shall be deemed "similar" to another service if the first has the same use and purpose as the second and belongs to a type which would ordinarily be sold for the same or substantially the same price.

§ 1499.3 *Maximum prices for commodities which cannot be priced under § 1499.2.* The seller's maximum price for a commodity which cannot be priced under § 1499.2 of this General Maximum Price Regulation shall be a maximum price in line with the level of maximum prices established by this General Maximum Price Regulation. Such price shall be determined by the seller in accordance with the following procedures:

(a) *Sales at wholesale or retail.* In the case of a *sale at wholesale or retail*, the seller (1) shall select from the same general classification and price range as the commodity being priced under this section, the comparable commodity for which a maximum price is established under § 1499.2 of this General Maximum

[1] Filed with the Division of the Federal Register.

Price Regulation and of which the seller delivered the largest number of units during March 1942, (2) shall divide his maximum price for that commodity by his *representative cost* of that commodity, and (3) shall multiply the percentage so obtained by the cost to him of the commodity being priced under this paragraph. The resulting figure shall be the maximum price of the commodity being priced. Within ten days after determining such maximum price under this paragraph the seller shall report such price to the *appropriate field office of Price Administration* upon a form, duly filled out and signed under oath or affirmation, copied from the form contained in § 1499.24, Appendix A, of this General Maximum Price Regulation. The price so reported shall be subject to adjustment at any time by the Office of Price Administration.

(b) *Sales other than at wholesale or retail.* In the case of a sale other than at wholesale or retail, the maximum price shall be a price determined by the seller after specific authorization from the Office of Price Administration. A seller who seeks an authorization to determine a maximum price under the provisions of this paragraph shall file with the Office of Price Administration in Washington, D. C., an application setting forth (1) a description in detail of the commodity for which a maximum price is sought; and (2) a statement of the facts which differentiate such commodity from other commodities delivered during March 1942 by such seller and by other competitive sellers of the same class. If such authorization is given, it will be accompanied by instructions as to the method for determining the maximum price. Within ten days after such price has been determined, the seller shall report the price to the Office of Price Administration in Washington, D. C., upon a form, duly filled out and signed under oath or affirmation, which will be furnished him. The price so reported shall be subject to adjustment at any time by the Office of Price Administration.

§ 1499.4 *Supplemental regulations.* If the maximum prices established for any commodity under the provisions of this General Maximum Price Regulation fail equitably to distribute returns from the sale at retail of such commodity among producers, manufacturers, wholesalers and retailers, the Price Administrator will by supplementary regulation establish such maximum prices for different classes of sellers, or fix such base periods for the determination of their maximum prices, as will insure that each such class of sellers shall receive a fair share of such return.

§ 1499.5 *Transfers of business or stock in trade.* If the business, assets or stock in trade of any business are sold or otherwise transferred after April 28, 1942, and the transferee carries on the business, or continues to deal in the same type of commodities or services, in an establishment separate from any other establishment previously owned or operated by him, the maximum prices of the transferee shall be the same as those to which his transferor would have been subject if no transfer had taken place, and his obligation to keep records sufficient to verify such prices shall be the same. The transferor shall either preserve and make available, or turn over to the transferee all records of transactions prior to the transfer which are necessary to enable the transferee to comply with the record provisions of this General Maximum Price Regulation.

§ 1499.6 *Sales for export.* The maximum price at which a person may export any commodity shall be determined in accordance with the provisions of the Maximum Export Price Regulation issued by the Office of Price Administration on April 25, 1942.

§ 1499.7 *Federal and State taxes.* Any tax upon the sale of a commodity or service, and any compensating use tax upon a commodity, levied by any statute of the United States or statute or ordinance of any state or subdivision thereof, shall be treated as follows in determining the seller's maximum price for such commodity or service and in preparing the records of such seller with respect thereto:

(a) *As to a tax in effect during March 1942.* (1) If the seller customarily stated and collected such tax separately from the purchase price during March 1942, the seller shall not include the tax in determining the maximum price under this General Maximum Price Regulation, and in such case may collect the tax in addition to the maximum price.

(2) If the seller did not customarily state and collect such tax separately from the purchase price during March 1942, the seller shall include the tax in determining the maximum price under this General Maximum Price Regulation, and in such case may not collect the tax in addition to the maximum price.

(b) *As to a tax which becomes effective after March 31, 1942.* If the statute or ordinance levying such tax requires or permits the seller to state and collect the tax separately from the price paid by the purchaser, and the seller does separately state it, the seller may collect the tax in addition to the maximum price.

§ 1499.8 *Less than maximum prices.* Lower prices than those established by this General Maximum Price Regulation may be charged, demanded, paid or offered.

Commodities and Services Excepted From This General Maximum Price Regulation

§ 1499.9 *Commodities excepted from this General Maximum Price Regulation.* (a) This General Maximum Price Regulation shall not apply to sales or deliveries of the following commodities:

(1) Any *raw and unprocessed agricultural commodity or greenhouse commodity* while it remains in substantially its original state, except that bananas shall be governed by this General Maximum Price Regulation.

(2) Eggs and poultry.

(3) All milk products, including butter, cheese, condensed and evaporated milk, except that fluid milk sold at retail, and ice cream shall be governed by this General Maximum Price Regulation.

(4) Flour, except that packaged cake mixes and other packaged flour mixes shall be governed by this General Maximum Price Regulation.

(5) Mutton and lamb.

(6) Fresh fish and seafood, and game.

(7) Dried prunes, dry edible beans, leaf tobacco (whether dried or green), nuts (but not peanuts), linseed oil, linseed cake and linseed meal, *mixed feed* for animals, and manure.

(8) Living animals, whether wild or domestic.

(9) Books, magazines, motion pictures, periodicals, newspapers, and materials furnished for publication by any press association or feature service.

(10) Domestic ores and ore concentrates.

(11) Stumpage, logs, and pulpwood.

(12) Stamps and coins; precious stones; antiques and knotted oriental rugs; paintings, etchings, sculptures and other objects of art.

(13) Used automobiles.

(14) Wood and gum for naval stores, and naval stores prior to sale to industrial consumers, or prior to the first sale to a distributor: *Provided, however,* That this General Maximum Price Regulation shall apply to all sales of such commodities on any exchange.

(15) *Securities.*

(16) Such other commodities as may be specified by supplementary regulations issued under this section.

(b) This General Maximum Price Regulation shall not apply to the following sales or deliveries:

(1) By a farmer, of commodities grown and processed on his farm, if the total of such sales or deliveries does not exceed $75.00 in any one calendar month.

(2) By any merchant, farmer, artisan, or person who renders professional services, of his used supplies, or business, farm, or professional equipment, not acquired or produced by him for the purpose of sale.

(3) By an owner, of his used personal or household effects or other personal property used by him.

(4) At a bona fide auction of used household or personal effects.

(5) By hotels, restaurants, soda fountains, bars, cafes, or other similar establishments, of food or beverages prepared and sold for consumption on the premises.

(6) By a breeder, trapper, or hunter, of pelts, furs, or other parts of wild animals raised by him, or trapped, shot, or killed by him, if the total of such sales or deliveries does not exceed $75.00 in any one calendar month.

(7) Of commodities sold without private profit in the course of any sale, fair, or bazaar conducted for a period of not more than 15 days by any religious, charitable, or philanthropic organization.

(8) To the United States or any agency thereof of such commodities or in such transactions as may be specified by supplementary regulations issued under this section.

(9) Such other sales and deliveries as may be specified by supplementary regulations issued under this section.

§ 1499.10 *Services excepted from this General Maximum Price Regulation.* The provisions of this General Maximum Price Regulation shall not apply to the following services:

(a) Services of an employee to his employer.

(b) Personal services not rendered in connection with a commodity.

(c) Professional services.

(d) Motion pictures, theatres and other entertainments.

(e) Services of a common carrier or public utility.

(f) Advertising services, including radio broadcasting.

(g) Insurance and underwriting services.

(h) Press association and feature services.

(i) Services relating solely to real property.

(j) Such other services as may be specified by supplementary regulations issued under this section.

Records

§ 1499.11 *Base-period records.* Every person selling commodities or services for which, upon sale by that person, maximum prices are established by this General Maximum Price Regulation, shall:

(a) Preserve for examination by the Office of Price Administration all his existing *records* relating to the prices which he charged for such of those commodities or services as he delivered or supplied during March 1942, and his offering prices for delivery or supply of such commodities or services during such month; and

(b) Prepare, on or before July 1, 1942, on the basis of all available information and records, and thereafter keep for examination by any person during ordinary business hours, a statement showing:

(1) The highest prices which he charged for such of those commodities or services as he delivered or supplied during March 1942 and his offering prices for delivery or supply of such commodities or services during such month, together with an appropriate description or identification of each such commodity or service; and

(2) All his customary allowances, discounts, and other price differentials.

Any person, other than a person selling at retail, who claims that substantial injury would result to him from making such statement available to any other person, may file it with the appropriate field office of the Office of Price Administration. The information contained in such statement will not be published or disclosed unless it is determined that the withholding of such information is contrary to the purposes of this General Maximum Price Regulation.

§ 1499.12 *Current records.* Every person selling commodities or services for which, upon sale by that person, maximum prices are established by this General Maximum Price Regulation shall keep, and make available for examination by the Office of Price Administration, records of the same kind as he has customarily kept, relating to the prices which he charged for such of those commodities or services as he sold after the effective date of this General Maximum Price Regulation; and, in addition, records showing, as precisely as possible, the basis upon which he determined maximum prices for those commodities or services.

§ 1499.13 *Maximum prices of cost-of-living commodities; statement, marking or posting.* For the purposes of this section, a cost-of-living commodity is any commodity designated as such by the Price Administrator. A list of the classes of commodities so designated appears in § 1499.25, Appendix B, of this General Maximum Price Regulation.

(a) On and after May 18, 1942, every person offering to sell a cost-of-living commodity at retail shall mark the maximum price of such commodity in a manner plainly visible to, and understandable by, the purchasing public. The maximum price may be marked on the commodity itself or on the shelf, bin, rack, or other holder or container upon or in which the commodity is kept, or it may be posted at the place in the business establishment where the commodity is offered for sale. The maximum price shall be stated as follows: "Ceiling Price $____;" or "Our Ceiling $____." Any person choosing to post by price-lines the maximum prices of commodities in the classifications marked by asterisks in § 1500.25, Appendix B, shall post the maximum price by price-line at the place in the business establishment where the commodities in such price-line are offered for sale, and, in addition, shall mark the selling price of each such commodity on the commodity itself.

(b) On or before June 1, 1942, every person offering to sell cost-of-living commodities at retail shall file with the *appropriate War Price and Rationing Board* of the Office of Price Administration a statement showing his maximum price for each such commodity, together with an appropriate description or identification of it. Such statement shall be kept up to date by such person by filing on the first day of every succeeding month a statement of his maximum price for any cost-of-living commodity newly offered for sale during the previous month, together with an appropriate description or identification of the commodity.

§ 1499.14 *Sales slips and receipts.* Any seller who has customarily given a purchaser a sales slip, receipt, or similar evidence of purchase shall continue to do so. Upon request from a purchaser any seller, regardless of previous custom, shall give the purchaser a receipt showing the date, the name and address of the seller, the name of each commodity or service sold, and the price received for it.

Registration and Enforcement

§ 1499.15 *Registration.* Every person selling at wholesale, and every person who owns, or hereafter becomes the owner of, any business operating an *establishment selling at retail* any commodity or service for which a maximum price is established by this General Maximum Price Regulation or by any other *price regulation* issued on or prior to April 28, 1942, by the Office of Price Administration shall register each such establishment with the Office of Price Administration at such time and in such manner as the Administrator may hereafter by regulation prescribe, on forms which will be made available by the Office of Price Administration.

§ 1499.16 *Licensing.* Every person selling at wholesale or retail any commodity or service for which a maximum price is established by this General Maximum Price Regulation or by any other price regulation issued on or prior to April 28, 1942, by the Office of Price Administration is by this General Maximum Price Regulation granted a license as a condition of selling any such commodity or service. Such license shall be effective on the effective date of this General Maximum Price Regulation or when any such person becomes subject to the maximum price provisions of this or any other price regulation, and shall, unless suspended in accordance with the provisions of the Emergency Price Control Act of 1942, remain in effect as long as such regulation, or any applicable part, amendment, or supplement remains in effect.

§ 1499.17 *Penalties.* Persons violating any provision of this General Maximum Price Regulation are subject to the criminal penalties, civil enforcement actions, and suits for treble damages provided for by the Emergency Price Control Act of 1942, and proceedings for the suspension of licenses.

Procedure for Adjustment or Amendment

§ 1499.18 *Applications for adjustment by retail sellers.* (a) Any seller at retail who finds that the maximum price of a commodity or service established for him under the provisions of §§ 1499.2 or 1499.3 of this General Maximum Price Regulation is abnormally low in relation to the maximum prices of the same or similar commodities or services established for other sellers at retail, and that this abnormality subjects him to substantial hardship, may file an application for adjustment of that maximum price in accordance with procedural regulations which will be issued by the Office of Price Administration.

(b) Any seller at retail who finds that his maximum price for any commodity, and the maximum prices of other retail sellers for the same commodity are abnormally low in relation to the level of maximum prices established by this General Maximum Price Regulation for

[fol. 2564a]

IN UNITED STATES COURT OF APPEALS

FOR THE NINTH CIRCUIT

Before: Magruder, Merrill, Circuit Judges and Solomon, District Judge.

MINUTE ENTRY OF ARGUMENT AND SUBMISSION—
March 10, 1961

This cause coming on regularly for hearing and submission Mr. Joseph L. Alioto argued for the appellants and Mr. Richard J. Archer and Edward R. Neaher argued for the appellees and thereupon, the court ordered this cause submitted for consideration and decision.

[fol. 2565]

IN UNITED STATES COURT OF APPEALS

FOR THE NINTH CIRCUIT

Before: Merrill, Magruder, Circuit Judges, and Solomon, District Judge.

MINUTE ENTRY OF ORDER DIRECTING FILING OF OPINION AND FILING AND RECORDING OF JUDGMENT—March 22, 1961

Ordered that the typewritten opinion this day rendered by this Court in above cause be forthwith filed by the clerk and that a judgment be filed and recorded in the minutes of this court in accordance with the opinion rendered.

[fol. 2566]

IN UNITED STATES COURT OF APPEALS

FOR THE NINTH CIRCUIT

No. 16,149

CONTINENTAL ORE COMPANY, a Partnership; and HENRY J. LEIR, ERNA D. LEIR, LINA SCHLOSS, as Individuals and as Partners under the trade name and style of Continental Ore Company, Appellants,

vs.

UNION CARBIDE AND CARBON CORPORATION; UNITED STATES VANADIUM CORPORATION; ELECTRO METALLURGICAL COMPANY; ELECTRO METALLURGICAL SALES CORPORATION; ELECTRO METALLURGICAL COMPANY OF CANADA, LIMITED; VANADIUM CORPORATION OF AMERICA, Appellees.

Appeal from the United States District Court for the Northern District of California, Southern Division.

OPINION—March 22, 1961

Before: Merrill and Magruder, Circuit Judges, and Solomon, District Judge.

Magruder, Circuit Judge.

Plaintiffs filed in the court below a treble damage antitrust complaint against defendants. Plaintiffs, a partnership and the partners in it suing individually, are the successors in interest to a family corporation known as Continental Ore Corporation. Both the plaintiff partnership, Continental Ore Company, and the previous corporation will be referred to as Continental.

The guiding light in Continental has been and still is the plaintiff Henry J. Leir. Leir was born in Germany and entered the ore and metal business there. His enterprises [fol. 2567] in Germany involved for the most part the purchase of raw materials for metal producers and the sale

of their finished products. Upon Hitler's rise to power Leir moved to Luxembourg, where he formed a company known as Société Anonyme des Minerais. This corporation subsequently entered into a joint venture with the Société d'Electro-Chimie de Brignoud, a French company otherwise known as Fredet-Kuhlmann. Brignoud undertook to install equipment for the production of ferro-vanadium and other alloys by a process known as the alumino-thermic method; Minerais supplied the raw materials, and the profits were split evenly. In 1938 Leir moved again, this time to the United States. He organized the Continental Ore Corporation in 1939 under the laws of the State of New York.

The defendants named in the complaint are Union Carbide and Carbon Corporation, a New York corporation, United States Vanadium Corporation, a Delaware corporation, Electro Metallurgical Company, a West Virginia corporation, Electro Metallurgical Sales Corporation, a New York corporation, Electro Metallurgical Company of Canada, Ltd., a Canadian corporation, and Vanadium Corporation of America, a Delaware corporation. Several other persons, whose names were unknown to the plaintiffs, were listed as Doe defendants.

The complaint states that, by means of a combination and conspiracy in violation of §§ 1 and 2 of the Sherman Act, 15 U.S.C. §§ 1 and 2, defendants eliminated the plaintiffs and their predecessor in interest, the Continental Ore Corporation, hereinafter included in the term plaintiffs, from the business of producing, selling and distributing vanadium oxide and ferro-vanadium. Plaintiffs claim that they made several forays into the vanadium industry, sometimes approaching the brink of success, other times not getting quite so far. Their inability to reach the desired goal in any of their various vanadium undertakings is the gist of their complaint. They ascribe their failures to defendants' alleged unlawful course of conduct.

Vanadium is a rare metallic element found for the most part in carnotite and roscolite ores. These vanadium-bearing ores are taken from the mines to the mills where they are "crushed," "roasted" and "leached" to form a substance called red cake. The red cake is then fused into a black oxide, which is called vanadium oxide, vanadic acid,

[fol. 2568] vanadium pentoxide, or V_2O_5. This oxide is then converted into ferro-vanadium through the application of great heat either by means of an electric furnace or by the alumino-thermic process. The ferro-vanadium thus produced is used by steel makers in the steel bath to add toughness and tensile strength to the steel.

According to the complaint, the defendants frustrated the plaintiffs' sallies into the vanadium field in five particulars:

(1) In 1938 Leir negotiated a contract between Apex Smelting Company of Chicago (hereinafter "Apex") and Société d'Electro-Chimie de Brignoud, the French corporation. Subsequently the plaintiffs were assigned one half of Brignoud's interest under the contract. The agreement provided that Apex was to build and operate a ferro-vanadium plant, using Brignoud's alumino-thermic method of conversion. Brignoud was to contribute the secrets of this process as its part of the project. Since the profits were to be divided equally between the two signatories to the agreement, the plaintiffs, as a result of the assignment to them, became entitled to one quarter of the profits realized from the arrangement. Plaintiffs were also appointed exclusive sales agents throughout most of the United States for the ferro-vanadium to be manufactured by Apex.

Production under this agreement was not actually begun by Apex until April, 1940. The agreement was terminated by Apex in the spring of 1942. According to the complaint, Apex ceased operations in ferro-vanadium and canceled the aforesaid agreement because a sufficient supply of oxide could not be obtained, this being attributed to defendants' antitrust violations. More specifically, in pursuance of their illegal combination and conspiracy, defendants were said to have refused to sell enough oxide to Apex and also to have prevented Apex from acquiring the necessary quantities of raw materials from other suppliers.

(2) In 1942, after the termination of the unfortunate Apex joint venture, the plaintiffs transformed rented premises on Long Island, New York, and there packaged a vanadium compound made up of vanadium oxide and small amounts of other materials. This compound, which was

sold under the trade name Van-Ex, was designed for direct use in the steel bath where it could be converted into ferro-[fol. 2569] vanadium and mixed into the steel in one operation, thereby obviating the need to produce ferro-vanadium by a separate procedure. In 1944 the sale of Van-Ex was discontinued because, according to plaintiffs' allegations, defendants' antitrust violations precluded the acquisition of sufficient oxide and ore. It is claimed that defendants refused to sell to the plaintiffs and prevented their securing raw materials elsewhere.

(3) During 1942 the plaintiffs sold substantial quantities of ferro-vanadium, apparently produced by Apex, and of Van-Ex to a Canadian company, Atlas Steels, Ltd. These sales ceased during 1943 because, as alleged, defendants agreed with Electro Metallurgical Company of Canada, Ltd., a wholly owned subsidiary of defendant Union Carbide, and the wartime agent of the Canadian Government for the purchase and allocation of vanadium products to Canadian steel firms, to eliminate Continental from the Canadian market. Pursuant to the agreement Electro Metallurgical Company of Canada refused, while exercising its powers as an agent of the Canadian Government, to purchase for and allocate to Canadian steel makers vanadium products made by the plaintiffs.

(4) During 1943, by threats of reprisals defendants allegedly forced the termination of contractual negotiations between Climax Molybdenum Corporation and the plaintiffs.

(5) In 1944 plaintiffs and Imperial Paper & Color Corporation entered into a contract much like the Apex arrangement above described, but providing in addition for the milling of oxide from vanadium ore. Imperial abandoned this contract before the production stage was ever reached because, according to the allegations, neither Imperial nor Continental was able to secure either ore or oxide with which to work as a consequence of defendants' refusal to sell supplies to them and of their actions which precluded the purchase of the same from other persons.

These five particulars by which defendants' alleged monopoly was purportedly furthered at Continental's expense

are given as the reason for plaintiffs' assertion that after 1944 they could no longer operate profitably in the vanadium business. The complaint does not recite any particular activities by the defendants against the plaintiffs after 1944. In summary, plaintiffs complain that defendants [fol. 2570] conspired and combined to monopolize the production and sale of vanadium oxide and ferro-vanadium; that in pursuance of this monopolistic scheme defendants refused to supply vanadium oxide to the plaintiffs to carry on the business of producing ferro-vanadium; that defendants similarly refused to sell to plaintiffs sufficient vanadium oxide to continue the business of processing, packaging and selling Van-Ex; and that, in the course of their unlawful monopolistic conspiracy, defendants coerced the defection of one of plaintiffs' Canadian customers for ferro-vanadium and Van-Ex, namely, Atlas Steels, Ltd.; and moreover that defendants defeated the efforts by plaintiffs to enter into a successful arrangement with Climax Molybdenum Company for the production of ferro-vanadium. The complaint states that, owing to all this,

> "Plaintiffs have lost business; the value of their trademarks has been diminished; markets and customers which they have obtained in open competition with defendants have been taken away from them; their investments have been lost; the good will attaching to the business of Continental has been impaired—all to the damage of plaintiffs in the sum of Five Hundred Twenty-Eight Thousand Dollars ($528,000)."

This amount the plaintiffs estimate they would have made from their various vanadium ventures had not the defendants committed the above listed acts as part of their unlawful conspiracy.

At the conclusion of the plaintiffs' case, and also when all the evidence was in, defendants moved for a directed verdict on the ground that there was insufficient evidence to establish the plaintiffs' claim to relief. The court took the motion under advisement but submitted the case to the jury, which reported a verdict for the defendants, with which verdict the trial judge noted his concurrence. Pursuant to this verdict the trial judge, on June 25, 1958, en-

tered his judgment stating that "the plaintiffs take nothing by their complaint and that the same be dismissed and that the defendants have judgment on the verdict against the plaintiffs". It is this judgment which is now before us on appeal by the unsuccessful plaintiffs.

An appellate court reviews judgments, not the reasons which may be given in their support. It is only common [fol. 2571] sense that if, on the record before us, we determine that the judgment is correct, it should be affirmed, regardless of the correctness of the reasons which may be given to support it. Suppose that the trial judge had decided to direct a verdict for the defendants. He would, in that event, have entered a judgment to the same effect as the one under review. If we conclude that the trial judge should have granted defendants' motion for a directed verdict, we should affirm the judgment as rendered, whatever errors appellants may convince us were made by the judge during the trial.

This proposition is well settled on the authorities. See *United States* v. *American Railway Express Co.*, 265 U.S. 425, 435 (1924); *Stroud* v. *Benson*, 254 F.2d 448, 451 (C.A. 4th, 1958); *Lady Nelson, Ltd.* v. *Creole Petroleum Corp.*, C.A. 2d, decided January 19, 1961. We think that the Fifth Circuit was quite wrong in *Thurber Corp.* v. *Fairchild Motor Corp.*, 269 F.2d 841 (1959), in holding that the foregoing rule was required to be modified or rendered inapplicable by the reasoning of the Supreme Court in *Cone* v. *West Virginia Pulp & Paper Co.*, 330 U.S. 212 (1947). This last-named case dealt with quite a different situation, namely, the power of an appellate court upon *reversal* of the district court where the losing party below had not moved for a judgment n.o.v. or, in the alternative, for a new trial, as provided in Rule 50(b) F.R.C.P. In the present case we propose to *affirm* the judgment of the district court. As late as 1957 the Supreme Court said, in *Jaffke* v. *Dunham*, 352 U.S. 280, 281 (1957), that, "A successful party in the District Court may sustain its judgment on any ground that finds support in the record," without any suggestion that this statement had to be modified to meet the reasoning of *Cone* v. *West Virginia Pulp & Paper Co.*, supra.

In fact, in the situation presented we do not see how we could do otherwise than affirm the judgment under review if we would obey the commands of 28 U.S.C. § 2111 and Rule 61 F.R.C.P. If we conclude that the trial judge should have granted defendants' motion for a directed verdict, it is not apparent how any alleged error at the trial could be deemed to "affect the substantial rights of the parties" within the meaning of both 28 U.S.C. § 2111 and Rule 61. In reaching our decision we shall look not only at all the evidence ad-[fol. 2572] mitted by the trial judge, but also at all the evidence offered by plaintiffs but excluded below.

In a treble damage action under 15 U.S.C. § 15, it is clear that the plaintiff, in order to make out a claim on which recovery might be had, has the burden of proof to establish the following elements of his case: (1) That the defendant has violated the antitrust laws; (2) that plaintiff has suffered an injury to his business or property susceptible of being described with some degree of certainty in terms of money damages; and (3) that a causal connection exists between the defendant's wrongdoing and the plaintiff's loss. See, generally, Comment, 61 Yale L. J. 1010, 1011-28 (1952). Although in the instant case the defendants challenged the sufficiency of the evidence as to the three elements of the plaintiffs' case, we shall first direct our analysis to the third element, the sufficiency of the evidence as to causation, because defendants' strongest argument seems to us to apply here. Of course, a failure by the plaintiffs to prove any one of the three elements of their case would require the trial judge to direct a verdict for the defendants.

For present purposes we shall assume that the evidence was adequate to support a jury finding that the defendants committed the violations of the Sherman Act claimed, and that the defendants did the acts mentioned as part of a plan to monopolize the marketing of ferro-vanadium. Our problem is to determine whether or not the evidence could have justified jury findings that defendants' alleged illegal acts were in fact the cause of the plaintiffs' failure in various adventures into the business of producing and selling ferro-vanadium and Van-Ex. We have come to the conclusion that the evidence offered by the plaintiffs was insufficient to justify a jury verdict that this necessary causal relation

existed, and therefore that the trial judge should have directed a verdict for the defendants.

As the First Circuit recognized in *Momand* v. *Universal Film Exchanges, Inc.*, 172 F.2d 37, 42-43 (1948):

> "The degree of certainty required of a plaintiff in proving causation of damage is necessarily elastic. It varies with the nature of the case. Particularly in an anti-trust suit, covering as it must many imponderables, rigid standards of precise proof would make a plaintiff's task practically hopeless.
>
> . . .
>
> [fol. 2573] "To sum up: It is well appreciated that a plaintiff has a difficult task in anti-trust suit and that adherence to strict requirements of proof as to exact quantity of damage may deprive him of the substance of his rights. The law has gone far to ease that burden by permitting proof of losses which border on the speculative, in order to implement the policy of the anti-trust laws. But a fair degree of certainty is still essential to show the causative relation of defendants' misconduct and plaintiff's injury."

No doubt, a plaintiff's difficulties of proof may be somewhat mitigated by a rule much akin to the doctrine of *res ipsa loquitur:* where the plaintiff proves a loss, and a violation by defendant of the antitrust laws of such a nature as to be likely to cause that type of loss, there are cases which say that the jury, as the trier of the facts, must be permitted to draw from this circumstantial evidence the inference that the necessary causal relation exists. *Bigelow* v. *RKO Radio Pictures, Inc.*, 327 U.S. 251 (1946). See also *Eastman Kodak Company of New York* v. *Southern Photo Materials Co.*, 273 U.S. 359 (1927); *Story Parchment Co.* v. *Paterson Parchment Paper Co.*, 282 U.S. 555 (1931). See *Martin* v. *Herzog*, 228 N.Y. 164, 170-71, 126 N.E. 814, 816 (1920).

But we are not sure that *Bigelow* v. *RKO Pictures, Inc.*, supra, is applicable in the instant case. Appellants have complained of the loss of a few named, specific, business arrangements rather than a general loss inflicted by the defection of countless, individual customers. Direct evi-

dence of causation was readily available to Continental, while in the case cited such direct evidence was practically impossible to come by. See, generally, Clark, "The Treble Damage Bonanza: New Doctrines of Damages in Private Antitrust Suits," 52 Mich. L. Rev. 363 (1954). Yet, even if the *Bigelow* decision could be enlisted to serve appellants' purposes, it was still incumbent upon them to show on the trial that their reiterated lack of supplies was the result of defendants' refusals to deal with them and of defendants' efforts to prevent them from obtaining raw materials elsewhere. See *Royster Drive-in Theatres, Inc.* v. *American Broadcasting-Paramount Theatres, Inc.*, 268 F.2d 246, 251 (C.A. 2d, 1959), cert. denied 361 U.S. 885 (1959); *Standard Oil Company of California* v. *Moore*, 251 F.2d 188, 198 [fol. 2574] (C.A. 9th, 1958); *Congress Bldg. Corp.* v. *Loew's, Inc.*, 246 F.2d 587, 596-98 (C.A. 7th, 1957); *Milwaukee Towne Corp.* v. *Loew's, Inc.*, 190 F.2d 561, 568 (C.A. 7th, 1951). This evidence is necessary in order to connect the asserted antitrust infractions with the alleged scarcity of supplies. Without such a connection, the *Bigelow* case does not come into play, for the requisite likelihood that defendants' actions caused plaintiffs' injuries is not sufficiently established to justify use of the *Bigelow* v. *RKO Pictures, Inc.*, supra, 327 U.S. 251, inference.

First, regarding the contract with Apex above referred to: Here, as elsewhere, the plaintiffs should have produced enough evidence to warrant a jury finding that defendants refused to sell to them and dried up other sources of raw materials.

The contract between Apex and Brignoud was executed on July 1, 1938, but it was not until the latter part of 1940 that Apex was actually ready to manufacture ferro-vanadium. Between the date of the execution of the contract and April, 1940, Apex was busy seeking technical assistance from Brignoud, a task made exceedingly difficult by the growing Nazi belligerence on the other side of the ocean. This assistance was needed to determine how much aluminum should be used in the alumino-thermic method of vanadium reduction; in other words, the amount of aluminum which, when used in the smelting process, would produce the best recovery of metallic vanadium from oxide. During this experimental period plaintiffs made their first

requests for the purchase of raw materials from the defendants.

In May, 1939, and again in July and October, 1939, the plaintiff Henry J. Leir, through the Continental Ore Corporation, sought to purchase from defendant Vanadium Corporation of America certain quantities of oxide. Although these various efforts were turned down by that defendant, it is clearly in evidence that during July and August, 1939, another defendant, Electro Metallurgical Sales Corporation, a wholly owned subsidiary of defendant Union Carbide, sold to the plaintiffs 16,000 pounds of oxide. In 1939 Apex was not ready to begin making ferro-vanadium and so did not call for any oxide from Continental. The oxide which plaintiffs acquired in 1939 was sold either on the export market or to non-associated buyers in the United States. It is clear that the alleged lack of oxide [fol. 2575] during 1939 could have no bearing on the ultimate unsatisfactory outcome of the Apex agreement. What Continental wanted in 1939 was oxide to sell abroad at export prices, not oxide to be delivered to Apex for its ferro-vanadium plant, which could not use it yet.

In 1940 the story is much the same. In March Apex did make one approach to Vanadium Corporation of America seeking to buy oxide. Vanadium replied that it had no material to offer Apex at that time. Even so, during the period between September and December, 1940, Apex having first begun in August of that year to produce ferro-vanadium, Continental sold 28,000 pounds of vanadium oxide to others than Apex, which it would certainly not have done had there been a shortage either at that time or to be anticipated in the near future. If such a shortage did exist, it is hard to understand why Apex turned down proffered arrangements with the Blanding mine or with Morrison, both of which could have furnished Apex a considerable quantity of oxide. We cannot by any stretch of the imagination come to the conclusion that the refusal of Vanadium Corporation of America to sell oxide to Apex in March, 1940, contributed to a shortage of supplies at its plant.

Nor was the situation much different during 1941. We note that during that year nobody on the plaintiffs' side made any offer to buy oxide from defendants. Rather,

plaintiffs wrote to defendants seeking from them offers for sale. The last of these letters was written in June, 1941, to defendant Electro Metallurgical Sales Corporation, which failed to answer. It is also in evidence that during 1941 Continental continued the practice of selling oxide indiscriminately.

Though no overtures were made to any defendant during 1942 concerning the possible purchase of oxide or ore, it is in evidence that an Apex supplier, Nisley & Wilson, sold 10,000 pounds of oxide to Vanadium Corporation of America in February of that year because Apex was unable to take that shipment owing to a fire in its ferro department.

It was not until June, 1942, that Apex canceled its joint venture arrangement with Brignoud allegedly because of the shortage of oxide resulting from plaintiffs' inability [fol. 2576] to buy supplies from defendants and from defendants' action in preventing Apex from obtaining raw materials from other producers. As noted previously, when rejections by defendants to deal with the plaintiffs are the crux of treble damage actions under the antitrust laws, it is clearly required that the plaintiffs must show that they offered to buy and that the defendants did not sell to them. Even assuming that the failure to make offers to sell in response to plaintiffs' inquiries amounted to a refusal to deal, the last request was made a year before the alleged lack of supplies is claimed to have caused Apex to end its relationship with the plaintiffs. We hold, under the cases cited pages 8-9,* *supra*, that the failure of Apex or of Continental to try to buy oxide from the defendants during the final and most critical period in the life of the Apex contract made it impossible for the jury to find that defendants' refusals to deal caused Apex to terminate the arrangement with Brignoud. In regard to the Apex venture, the judgment below is affirmed.

We come now to the plaintiffs' efforts to market the Van-Ex compound. Some Van-Ex had been made by Apex before relations with Brignoud finally came to an end in July, 1942. But most of this product was manufactured by Continental in rented premises in Long Island City, New York. According to the allegations of the complaint, the

* Printed herein at side folios 2573 and 2574.

sales of Van-Ex were completely stopped in 1944 for the reason that, because of the defendants' wrongdoing, Continental was never able to secure sufficient supplies of raw materials to stay in business. The defendants contended that the manufacture of Van Ex really stopped in 1943, when Continental sold its pebble mill.

The complaint itself is somewhat confusing as to why the Van-Ex business fell off. One paragraph states that the cause of this disaster was the inability of the plaintiffs to secure raw materials through defendants' wrongful acts. Another paragraph asserts that the plaintiffs were shouldered out of the vanadium field, and specifically out of Van-Ex, by defendants' interference with Continental's primary customer for Van-Ex, Atlas Steels, Ltd., of Canada. Defendants are accused of preventing Atlas from securing Van-Ex from Continental. It seems obvious that, if lack of supplies was really the cause of Continental's undoing with regard to Van-Ex, the loss of Atlas as a customer would [fol. 2577] become irrelevant, for the absence of customers cannot hurt a seller who has nothing to sell. On the other hand, if the defection of Atlas was the cause of Van-Ex's demise, the alleged lack of supplies could have had no relevance, for an abundance of goods is of no use to a seller who lacks customers.

As to the lack of supplies needed to produce Van Ex, the plaintiffs once again have the burden of introducing sufficient evidence to warrant the inference that they were unable to obtain oxide from the defendants or from anybody else.

The Van-Ex venture must be viewed against the background of wartime regulations and procedures. Metals Reserve Company (hereinafter MRC) was formed by the United States Government in the early months of 1942 to insure that vanadium for the war effort would be readily available when needed. MRC named defendant United States Vanadium Corporation its agent to carry out the appointed task. MRC and United States Vanadium Corporation had three plants at their disposal for milling oxide from ore, one run by the latter at Durango, Colorado, one by Vanadium Corporation of America at Monticello, Utah, and, toward the end of 1942, the Nisley & Wilson mill at

Gateway, Colorado. These three plants processed ore furnished by United States Vanadium Corporation as agent for MRC, and the oxide produced was turned over to MRC for a fee or "toll" on each pound.

The oxide accumulated by MRC in this manner was then sold to private interests, provided the prospective buyer could receive an allocation from the War Production Board. There is no evidence that Continental had any trouble obtaining such allocations. By the end of 1943 MRC to all intents and purposes had stopped functioning. At that time the Manhattan Project, designed to make the first atomic bomb, began operations. Since uranium comes from the same ore as vanadium, control over vanadium ore was assumed by the Manhattan Project. So far, however, as can be inferred from the record, the manipulations by the Manhattan Project and by its agent, Union Mines Development Company, a wholly owned subsidiary of defendant Union Carbide, did not come into play until after the Van-Ex project had come to an unsuccessful close.

[fol. 2578] In March, 1943, Continental was granted an allocation for 20,000 pounds of oxide from the War Production Board. MRC supplied 10,000 pounds and the balance was purchased from the defendant Electro Metallurgical Sales Corporation. In making this purchase from Electro, Continental squabbled somewhat over the price but eventually the sale was made at the price offered by Continental.

Later in the same year Continental asked defendants Electro Metallurgical Sales Corporation and Vanadium Corporation of America for contracts under which it could buy from them a certain amount of oxide each month over a prolonged period, but the requests were turned down. Again, we must assume that the denial of these requests for contracts amounted to a refusal to deal with the plaintiffs.

None the less, appellants failed to show that defendants prevented them from buying raw materials from an independent supplier, namely, Nisley & Wilson. Late in 1942, at the beginning of that firm's toll agreement with MRC, some of its production was earmarked and sent to Continental through MRC. These shipments apparently stopped

early in 1943. In the spring of that year MRC entered into a contract with Continental under which the production of Nisley & Wilson, or a part of it, would be shipped to Continental from time to time. In June 17,000 pounds of oxide were ready, but Continental did not wish to buy for the reason that the oxide was in lumps and Continental needed material more finely ground. Continental had bought these lumps from Nisley & Wilson in the fall of 1942 but did not want them in the summer of 1943. This may have been because Continental had sold the pebble mill which it had begun to operate in Long Island City in 1942. Moreover, because in the summer of 1943 Nisley & Wilson could not have produced oxide in forms smaller than the lumps unacceptable by Continental, the latter canceled its contract with MRC.

In October, 1943, Nisley & Wilson foresaw the end of its toll agreement with MRC and installed a flaking machine. It could now produce oxide in flakes rather than in lumps. Continental was advised of the new acquisition and a sample of oxide in the new form was submitted. Continental [fol. 2579] replied that the flakes were just what the doctor ordered, but made no effort to secure Nisley & Wilson's product. Plaintiff's witness Martin Wolf testified that this was because Continental did not know that the toll agreement was about to expire and thought that it would not be able to get anything from MRC which, says Continental, was controlled by its agent United States Vanadium Corporation. Nisley & Wilson shut down in January, 1944. It had on hand a stockpile of about 300,000 pounds of oxide which it tried to sell to Continental in the spring of 1944. Again Continental refused to buy.

We think this failure to deal with Nisley & Wilson during the Van-Ex period precludes Continental from arguing that defendants prevented the acquisition of raw materials at that time. As to Apex, appellants failed to show their inability to get oxide from defendants. With regard to Van-Ex, they failed to show that it was impossible for them to obtain supplies from an independent producer.

As to the alternative allegation, that the loss of the Van-Ex business was caused by the defendants' interference

with Canadian buyers, principally Atlas Steels, Ltd., we cannot ignore the fact that Electro Metallurgical Company of Canada, Ltd., had been appointed by the Canadian Government to act as its agent in purchasing Van-Ex for Canadian steel makers. The Canadian Government established a regulation under which no vanadium oxide (including Van-Ex) could be imported into Canada by anybody other than its agent, and Electro Metallurgical Company of Canada, Ltd., refused to purchase Van-Ex from the plaintiffs. Thus, even if we assume that Electro Metallurgical Company of Canada, Ltd., acted for the purpose of entrenching the monopoly position of the defendants in the United States, it was acting as an arm of the Canadian Government, and we do not see how such efforts as appellants claim defendants took to persuade and influence the Canadian Government through its agent are within the purview of the Sherman Act. See *Eastern Railroad Presidents Conference* v. *Noerr Motor Freight, Inc.*, decided by the Supreme Court February 20, 1961.

We now refer briefly to the two remaining allegations of the complaint designed to show that the defendants' illegal acts caused a failure of the plaintiffs to compete successfully in the ferro-vanadium field.

[fol. 2580] During 1943, by threats of reprisals made by one M. D. Arrouet, defendants allegedly forced the termination of contractual negotiations between Climax Molybdenum Corporation and the plaintiffs. The trial judge excluded all evidence dealing with the alleged threats of reprisal; therefore we look to appellants' offer of proof to determine what the story was. Appellants offered to demonstrate that Mr. Arrouet was a highly placed representative of defendants Union Carbide group. It is admitted that he was not an officer of any of the defendants, but it is alleged that his threats of reprisals ought to bind Union Carbide and Electro Metallurgical Company. Appellants' offer of proof would show that Arrouet threatened that if Climax undertook the manufacture of ferro-vanadium for Continental, the defendants would enter the industry as a reprisal against Climax.

For present purposes we shall assume that Arrouet said what appellants say he said, and we shall also assume that

his statement is to be considered the statement of those defendants in the Union Carbide group. The difficulty with appellants' position in this regard is that the record contains no evidence of the nature of the alleged pending negotiations with Climax. There had been, in February, 1943, an earlier arrangement between Continental and Climax, which it appears was completed. By the end of April, 1943, Continental had shipped the agreed poundage of vanadium oxide to Climax, and Climax had converted this material in accordance with its part of the bargain. This earlier transaction stands alone in the record as the only connection between Climax and Continental. Thus even if Continental and Climax were threatened with reprisals, the evidence does not reveal the result of such threats. On the basis of the evidence in the case, the threat of reprisal appears to be one directed against a corporation with which Continental had no business, since the nature and existence of the alleged "pending negotiations" are not shown by the record. Appellants have thus failed to show any injury resulting from the alleged threats. There must be an injury, together with a wrong and a causal connection between the two, before liability can result.

The remaining instance given in the record is the so-called Imperial venture. On January 4, 1944, Continental Ore Corporation and Imperial Paper & Color Corporation, in- [fol. 2581] corporated in New York, entered into a contract calling for the manufacture of vanadium products. Continental was appointed the exclusive sales agent for these products. Imperial was to pay Continental a commission on all sales made. Imperial was also to install the necessary equipment and give Continental the first opportunity to supply Imperial's total requirements for raw materials. Imperial had some raw materials of its own as by-products of its other business. The Continental-Imperial contract was made contingent upon the decision of Imperial to manufacture vanadium from other raw materials than its chromite by-products. If Imperial should decide not to enter this new field of production, the contract was to become null and void.

This is exactly what transpired. In December, 1944, Imperial wrote Continental that it was not yet willing to

begin the manufacture of ferro-vanadium as called for in the contract between them. It is clear from this letter that Imperial was worried over the sources of supply of vanadium-bearing raw materials. Similar letters from Imperial to Continental were written on April 9, April 13, and May 11, 1945. Sometime during 1945 Imperial decided not to go into the ferro-vanadium venture with Continental and chose to exercise its right under the contract to call the agreement off. The arrangement never got started. Imperial did not install the necessary equipment and no ferro-vanadium was produced.

The various communications from Imperial to Continental show clearly that Imperial was dissuaded from entering this field because of the lack of sources of raw material. It is the appellants' position that they could not get a steady, uniform supply of raw materials because of defendants' alleged antitrust infractions. There is a great deal of evidence showing that various sources of vanadium other than vanadium oxide mined on the Colorado plateau were available to Continental during the life of the Imperial contract. These included lead vanadate from Africa, vanadium ash from Peru, flue dust from ocean-going vessels burning certain Venezuelan and Mexican oils, and something called cuprodescloizite ores. Mr. Wolf, the vice-president of Continental, testified that it would be almost impossible to produce vanadium from these raw materials unless they could be gotten in a steady and uniform manner. Be that as it may, the evidence in regard to [fol. 2582] the period of the Imperial venture shows the failure on the part of appellants to offer to buy raw materials from the defendants. As we have observed in regard to the Van-Ex venture, both Electro Metallurgical Sales Corporation and Vanadium Corporation of America turned down requirements contracts with Continental late in 1943. At this time the supplies of Nisley & Wilson were available to Continental and were not procured from that firm. The Imperial contract was entered into in January, 1944, and canceled sometime in 1945. Yet from the end of 1943 until 1946, when Electro Metallurgical Sales Corporation gave Continental a requirements contract for vanadium oxide, appellants made no move to obtain the allegedly necessary

steady and uniform source of supply from any of the defendants. This is much like the Apex situation except that here there were no offers to buy during the entire life of Continental's arrangement with Imperial. Surely Continental cannot complain that the defendants did it wrong when it cannot show that it sought to alleviate its situation by seeking supplies from the defendants at any time during the life of the Imperial venture.

A judgment will be entered affirming the judgment of the District Court.

[File endorsement omitted]

[fol. 2583] [File endorsement omitted]

IN UNITED STATES COURT OF APPEALS

FOR THE NINTH CIRCUIT

No. 16149

CONTINENTAL ORE COMPANY, et al., Appellants,

vs.

UNION CARBIDE AND CARBON CORPORATION, Appellees.

JUDGMENT—Filed and entered March 22, 1961

Appeal from the United States District Court for the Northern District of California, Southern Division.

This Cause came on to be heard on the Transcript of Record from the United States District Court for the Northern District of California, Southern Division and was duly submitted.

On consideration whereof, It is now here ordered and adjudged by this Court, that the judgment of the said District Court in this Cause be, and hereby is affirmed, with costs in favor of the appellees and against the appellants.

It is further ordered and adjudged by this Court that the appellees recover against the appellants for their costs herein expended, and have execution therefor.

[fol. 2584]

IN UNITED STATES COURT OF APPEALS

FOR THE NINTH CIRCUIT

Before: Magruder, Merrill, Circuit Judges and Solomon, District Judge.

MINUTE ENTRY OF ORDER DENYING PETITION FOR REHEARING —May 15, 1961

On consideration thereof, and by direction of the Court, It Is Ordered that the petition of appellants filed April 21, 1961, and within time allowed therefor by rule of court, for a rehearing of above cause be, and hereby is, denied.

[fol. 2585] Clerk's Certificate to foregoing transcript (omitted in printing).

[fol. 2586]

SUPREME COURT OF THE UNITED STATES

No. 304, October Term, 1961

CONTINENTAL ORE COMPANY, et al., Petitioners,

vs.

UNION CARBIDE AND CARBON CORPORATION, et al.

ORDER ALLOWING CERTIORARI—October 23, 1961

The petition herein for a writ of certiorari to the United States Court of Appeals for the Ninth Circuit is granted limited to Questions 2, 5, and 6 presented by the petition which read as follows:

"2. Whether an Appellate Court can take away from a jury the question of causal effect concerning an injury by a 100% two-company monopoly (admittedly achieved pursuant to an intent to monopolize) when the question of violation is confessed and the issue of measurement of damages is more than sufficiently supported by relevant economic data and where the destruction of the plaintiff company (petitioners herein) was admitted to be, by a chief executive officer of a defendant, an important goal of the monopolists?

"5. Whether petitioners, an American company, can claim damages under the anti-trust laws for injury caused by their elimination from the Canadian market when it is shown that two other American companies had entered [fol. 2587] into a conspiracy to eliminate all competition and to monopolize the industry and when it is shown that as part of this conspiracy one of the American companies utilized its domination and control over a wholly owned Canadian subsidiary which had been given a discretionary power by the Canadian government to allocate the importation of vanadium into Canada during the war, to exclude the exports of petitioners (competitors) from entering Canada for sale to petitioners' Canadian customers and when it is shown that the refusal of the Canadian subsidiary to allocate vanadium to petitioners' Canadian customers was directed by its American parent company pursuant to the overall conspiracy to eliminate all competition and specifically to eliminate petitioners. This issue was erroneously decided against petitioners on the Court of Appeals' manifest misapplication of this Court's recent opinion in Eastern Railroad Pres. Conf. v. Noerr Motor Frgt., Inc. (1961), 365 U.S. 127, 81 S.Ct. 523.

"6. Whether petitioners, against whom a directed verdict was ordered by the Appellate Court, were deprived of a trial by jury by the Appellate Court below which weighed the evidence, made factual rulings on the sufficiency of evidence of causation, did not view the evidence as a whole, did not allow petitioners the benefit of all their evidence, did not allow petitioners the benefit of all inferences and presumptions to be drawn from the evidence and did not

resolve all conflicts in the evidence in favor of petitioners in direct conflict with this Court's opinion in Beacon Theatres, Inc. v. Westover, 359 U.S. 500 (1959)."

And it is further ordered that the duly certified copy of the transcript of the proceedings below which accompanied the petition shall be treated as though filed in response to such writ.

EXHIBIT VOLUME—VIII

TRANSCRIPT OF RECORD

Supreme Court of the United States

OCTOBER TERM, 1961

No. 304

CONTINENTAL ORE COMPANY, ET AL.,
PETITIONERS,

vs.

UNION CARBIDE AND CARBON
CORPORATION, ET AL.

ON WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

PETITION FOR CERTIORARI FILED AUGUST 11, 1961
CERTIORARI GRANTED OCTOBER 23, 1961

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1961

No. 304

CONTINENTAL ORE COMPANY, ET AL.,
PETITIONERS,

vs.

UNION CARBIDE AND CARBON
CORPORATION, ET AL.

ON WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE NINTH CIRCUIT

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63.	Letters dated 3/11/40 and 4/8/40 from Lippa of Apex Smelting to V.C.A., and reply of G. Laub of V.C.A. to Apex dated 4/20/40	163	170
75.	Telegram dated 1/13/44 from Nisley & Wilson to Continental Ore	166	172
76.	Letter dated 1/31/44 from Frank Nisley to Continental Ore	171	174

Plaintiffs' Exhibit No.:		Original	Print
77.	Letters from Leir to Roser dated 6/14/41, from Leir to Gormely dated 6/16/41, and from Gormely to Leir dated 7/31/41	172	176
78.	V.C.A. inter-office memorandum dated 2/14/47, P. J. Gibbons to J. B. Girdler; letter dated 2/24/47, Girdler to Continental Ore Company; letter dated 3/7/47, Continental Ore Company, by J. A. Mirel, to Vanadium Corporation of America; letter dated 3/13/47, Girdler to Continental Ore Company	175	178
111.	Letter agreement between Climax Molybdenum Company of Pennsylvania and Continental Ore Company dated February 10, 1943	179	182
113.	Letter dated 11/10/43 from E. F. Hatch of War Production Board to W. G. Haldane of U.S.V.	180	184
114.	Letter dated 12/5/44 from Brown, General Manager of Imperial Paper & Color Corporation to Continental Ore Company	181	185
116.	Memorandum of Martin Wolf, Continental Ore Company, dated 2/19/43	182	187
127.	Letter dated 1/13/42 from Continental Ore Corporation to Apex Smelting Company	183	188
128.	Telegram from Continental to Apex dated 10/17/40 and letter from Apex to Continental of the same date	184	189
135.	Exchange of letters between Vitro Manufacturing Co. and Continental Ore Corporation in August 1942	186	191
142.	Letter dated 5/25/38 from Apex Smelting Company to Robert E. Adams	188	193

Plaintiffs' Exhibit No.:		Original	Print
145.	Defense Plant Corporation letter to Mr. Lippa, Apex Smelting Co., dated 12/20/41	189	194
147.	Letter dated 9/17/43, J. W. Hill to Page Edwards	190	195
148.	Memo dated 2/4/44, Page Edwards to J. W. Hill	192	196
152.	Agreement between Mesa Vanadium Company and United States Vanadium Corporation, dated May 7, 1940	193	197
155.	Letter dated 10/13/43 from Remmers to J. D. Swain	199	203
156.	Letter dated November 19, 1941 from Milenski to Apex Smelting Company	201	206
159.	Letter from Blanding Mines to Apex Smelting dated 2/23/42	202	207
161.	Telegram, Jaoul Electrochimie to Vanadium Corporation of America, dated 10/4/39	203	208
163.	Cablegram, 11/8/39, from Vanadium Corporation of America to Trochim, France	204	209
164.	Letter, V.C.A. to Societe d'Electro Chimie, dated 11/9/39	205	210
165.	Cablegram, 12/14/39, Vanadium Corporation of America to Trochim	207	212
166.	Letter, 3/28/40, Bransome to Painvin	208	213
171.	Letter, Bransome to Viles, V.C.A. dated 5/25/43	210	216

Plaintiffs' Exhibit No. for Identification only		Original	Print
20.	Union Carbide's Answers to Interrogatory No. 33 showing net sales, total costs of net sales and profits before federal taxes pertaining to vanadium and uranium together with Vanadium Corporation of America's answer setting forth yearly total costs of all vanadium and uranium products and their respective compounds and sales value, years 1933 to 1947	211	217
25.	Memorandum of Sale of vanadium oxide by Electromet Sales to Vanadium Corporation of America, dated 9/15/33 together with correspondence pertaining to said memorandum of sale; Memorandum of Sale of oxide by Electromet Sales to Vanadium Corporation of America, dated 1/3/36	213	219
47.	Report on Vanadium dated June 1935 by C. E. MacQuigg of Union Carbide Research Laboratories (excerpts)	224	230
48.	Series of letters between personnel of Union Carbide or its subsidiaries dated from July 29, 1935 to December 3, 1935, entitled "Vanadium Situation" or "Vanadium Report"	281	286
49.	Inter-office communications from Van Fleet to F. P. Gormely of Electromet dating from 3/9/36 to 11/3/37 and letter from Van Fleet to Burwell dated 12/29/36	304	316
50.	Memoranda of V.C.A. Ore Conference Meeting held in New York dated 12/8/36 and 2/9/37	314	326

Plaintiffs' Exhibit No. for Identification only		Original	Print
51.	Report by Mr. Van Fleet to F. P. Gormely, F. H. Haggerson, W. H. Sneath, J. M. Price, dated March 25, 1936	318	331
52.	Inter-office reports of V.C.A. and letters between Electromet Sales or U.S.V. and V.C.A. dated in 1934, 1935, and 1936. Sales agreements between Electromet Sales and V.C.A. of 9/15/33 and 1/3/36	322	336
53.	Inter-office memorandum from Blair Burwell to J. R. Van Fleet dated 12/22/33	337	351
54.	Minutes of the Meeting of the Executive Committee of Vanadium Corporation of America, dated April 4, 1935	341	358
60.	Memorandum by Blair Burwell entitled American Uranium Resources dated July 8, 1949 prepared for Senator Milliken	343	360
61.	Memorandum by Blair Burwell entitled Memorandum on Vanadium and the Operations of the United States Vanadium Corporation dated January 4, 1956	352	371
65.	Proposed contract executed by W. E. Remmers, Executive Vice President, United States Vanadium Corporation for Blair Burwell, dated February 2, 1948 together with correspondence regarding same	367	384
67A to 67F.	Series of inter-office letters between personnel of United States Vanadium and/or Electromet dated in 1934	372	390

Plaintiffs' Exhibit No. for Identification only		Original	Print
80.	Letter 1/19/43, Leir to G. B. Walker, Electromet	409	438
81.	Letter 1/29/43, Leir to Arrouet	410	439
82.	Letter 2/10/43, Bravin, Electromet of Canada, to Continental Ore	411	441
83.	Letter 2/11/43, Continental Ore to Bravin	412	442
84.	Letter 2/17/43, Bravin to Continental Ore	413	443
85.	Wire 2/18/43, Continental Ore to Bravin	414	444
86.	Letter 2/23/43, Bravin to Continental Ore	415	445
87.	Wire 3/1/43, Continental Ore to Bravin	416	446
88.	Letter 3/3/43, Continental Ore to Electromet of Canada	417	446
89.	Letter 3/10/43, from Continental to Electromet of Canada	418	447
90.	Wire 3/19/43, Continental Ore to Bravin	419	448
91.	Wire 3/20/43, Bravin to Continental Ore	420	449
92.	Letter 4/26/43, Wolf to Office of Metals Controller, Canada	421	449
93.	Letter 4/29/43, Dawson, Office of Metals Controller to Continental Ore	422	451
94.	Letter 5/4/43, Wolf to Electromet of Canada	423	452
95.	Letter 5/17/43, Wolf to Electromet of Canada	424	453
96.	Letter 5/20/43, Wolf to Electromet of Canada	425	454
97.	Letter 6/1/43, Electromet of Canada to Continental Ore	426	455
98.	Wire 6/1/43, Continental Ore to Electromet of Canada	427	456

Plaintiffs' Exhibit No. for Identification only		Original	Print
99.	Letter 6/29/43, Continental Ore to Electromet of Canada	428	457
100.	Letter 7/5/43, Bravin to Continental Ore	429	458
101.	Letter 7/30/43, Leir to Electromet of Canada	430	459
102.	Letter 8/2/43, Bravin to Continental Ore	431	460
103.	Letter 9/23/43, Continental Ore to Electromet of Canada	432	461
104.	Letter 10/4/43, Bravin to Continental Ore	433	462
105.	Letter 10/5/43, Leir to Electromet of Canada	434	463
106.	Letter 10/27/43, Leir to Electromet of Canada	435	464
107.	Letter 10/30/43, Bravin to Continental Ore	436	465
108.	Letter 2/2/44, Leir to Electromet of Canada	437	466
109.	Memoranda of M. Wolf dated 6/11/43	438	467
121.	Balance Sheets and Profit and Loss Statements of Continental Ore Corporation and Continental Ore Company	439	469
123.	Tabulation of Net Worth of Continental Ore Company, 1939-1949	506	536
124.	Tabulation of Net Worth of the Continental Ore Group, 1950-1957	507	537
125.	Tabulation of Fluorspar sales by Continental Ore Company 1939 to 1957	509	539
126.	Tabulation estimating sales of vanadium products based on sales of fluorspar, 1939 to 1949	511	541
133.	Computation entitled "Illustration of Gross Profit on Sale of Van Ex"	512	542

Plaintiffs' Exhibit No. for Identification only		Original	Print
139.	Computation entitled "Continental Ore Group Ferro-vanadium—Calculation of Profits Lost on Assumption That Continental Would Have Had the Same Percentage of the Market 1941-1949"	513	543
140.	Calculation of Lost Profits Based on Apex Capacity	514	544
141.	Calculation of Lost Profits Based on Various Percentages of the Market	515	545

Defendant Union Carbide's Exhibits:

	Original	Print
No. U-V (excerpts)—Contract No. W-7405 eng-201, dated September 1, 1943, between U.S.A. and United States Vanadium Corporation	517	547
No. U-W (excerpts)—Contract No. W-7405 eng-250, dated June 26, 1944, between U.S.A. and United States Vanadium Corporation	521	550
No. U-X (excerpts)—Contract No. W-7405 eng-32, dated January 25, 1943, between U.S.A. and United States Vanadium Corporation	524	554
No. U-3-G—Letter, dated January 26, 1944, from Continental Ore Company to Imperial Paper and Color Corporation	526	557
No. U-3-J—Interchange of letters, dated December 1, 29, and 31, 1947, between Imperial Paper and Color Corporation and Continental Ore Company	527	558
No. U-3-K—Letter, dated April 9, 1945, from Imperial Paper and Color Corporation to Continental Ore Company	530	561
No. U-3-M—Letter, dated January 29, 1944, from Continental Ore Company to Imperial Paper and Color Corporation	531	562
No. U-3-N—Letter, dated December 4, 1944, from Continental Ore Company to Imperial Paper & Color Corp.	532	564
No. U-3-R—Letter, dated May 11, 1943, from William A. Baehr Organization, Inc. to Continental Ore Company	533	565
No. U-3-T—Memorandum, dated December 8, 1943, from Morris Wolf to North Continent Mines	534	566
No. U-4-C—Letter, dated March 5, 1943, from Metals Reserve Company to Continental Ore Company	535	567
No. U-4-D—Letter, dated April 9, 1943, from Continental Ore Company to Electro Metallurgical Co.	537	569
No. U-4-E—Letter, dated April 14, 1943, from Continental Ore Company to Electro Metallurgical Sales Corp.	538	570

Defendant Union Carbide's Exhibits—Continued

	Original	Print
No. U-4-F—Memorandum, dated April 29, 1943, from Morris Wolf to Metals Reserve	539	571
No. U-4-G—Invoice No. 24892, dated April 30, 1943, from Electro Metallurgical Sales Corporation to Continental Ore Corp.	541	573
No. U-4-I—Letter, dated May 11, 1943, from Continental Ore Company to Electro Metallurgical Sales Corp.	543	575
No. U-4-J—Letter, dated May 18, 1943, from Electro Metallurgical Sales Corporation to Continental Ore Company	544	576
No. U-4-K—Letters, dated May 19, 1943, from Continental Ore Company to Electro Metallurgical Sales Corp.	545	577
No. U-4-L—Letter, dated May 20, 1943, from Electro Metallurgical Sales Corporation to Continental Ore Company	547	579
No. U-4-M—Letter, dated May 21, 1943, from Continental Ore Company to Electro Metallurgical Sales Corp.	548	580
No. U-4-N—Letter, dated May 25, 1943, from Electro Metallurgical Sales Corporation to Continental Ore Company	549	581
No. U-4-O—Letter, dated May 26, 1943, from Continental Ore Company to Electro Metallurgical Corp.	550	582
No. U-4-P—Letter, dated May 27, 1943, from Continental Ore Company to Electro Metallurgical Sales Corp.	551	583
No. U-4-Q—Letter, dated June 1, 1943, from Electro Metallurgical Sales Corporation to Continental Ore Company	552	584
No. U-5-G—Memorandum from Electro Metallurgical Company to Continental Ore Company re Order No. 7460 shipped April 24, 1946	553	585

Defendant Union Carbide's Exhibits—Continued

	Original	Print
No. U-5-I—Letters, dated November 20, 1943, February 18, 1944, and June 2, 1944, from Continental Ore Company to North Continent Mines, Inc.	554	586
No. U-5-L—Interchange of letters, dated July 26, and 28, 1939, between R. Poliakoff and Electro Metallurgical Sales Corp., and letter, dated August 28, 1939, from Continental Ore Corporation to R. Poliakoff.	557	588
No. U-5-N—Continental Ore Corporation's Invoices Nos. S704, dated September 16, 1940; S715, dated September 30, 1940; S749, dated October 4, 1940; S761, dated October 29, 1940; credit memorandum, dated October 30, 1940; S774, dated October 29, 1940; credit memorandum, dated October 30, 1940; S814, dated November 19, 1940; S827, dated December 6, 1940; S834, dated December 19, 1940; and S1004, dated July 19, 1941, to various corporations	560	591

Defendant Vanadium Corporation of America's Exhibits:

No. V-1-Z—Wire, dated February 13, 1942, from LL to Continental Ore Corp.	571	602
No. V-2-A—Letter, dated February 16, 1942, from Continental Ore Corporation to Apex Smelting Company	572	603
No. V-2-F—Interchange of letters, dated April 7 and 8, and September 30, 1942, between Continental Ore Corporation and Apex Smelting Company	576	608

[fol. 1]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 1

Plaintiff's Exhibit No. 1

INTERROGATORY NO. 8(d)

UNITED STATES VANADIUM CORPORATION

PRODUCTION OF SOLD VANADIUM OXIDE

FOR THE PERIOD JANUARY 1, 1933 TO DECEMBER 31, 1947

QUANTITIES GIVEN ARE POUNDS OF V_2O_5

CONTAINED

	Uravan	Rifle	Durango	Total
1933	-	-	-	-
1934	-	-	-	-
1935	-	-	-	-
1936	33,446	-	-	33,446
1937	1,214,063	-	-	1,214,063
1938	1,875,096	-	-	1,875,096
1939	2,004,993	-	-	2,004,993
1940	2,175,823	-	-	2,175,823
1941	2,370,701	-	-	2,370,701
1942	2,174,433	1,098,078	-	3,272,511
1943	1,734,230	1,325,000	-	3,059,230
1944	722,293	1,357,009	178,195	2,257,497
1945	-	1,550,200	354,000	1,941,122
1946	-	1,331,933	-	1,331,933
1947	-	2,286,041	-	2,286,041

[fol. 1a]

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[fol. 2]

EXHIBIT III

QUANTITATIVE YEARLY TOTAL OF VANADIUM PENTOXIDE PRODUCED - 1933 - 1947

Year	Lbs. V_2O_5
1933	83,525
1934	377,374
1935	None
1936	420,318
1937	1,035,337
1938	1,354,891
1939	2,400,547
1940	2,379,372
1941	2,421,959
1942	3,097,962
1943	2,958,368
1944	1,992,783
1945	1,811,161
1946	809,960
1947	2,717,134

[fol. 2a]

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2a

[fol. 3]

INTERROGATORY NO. 8(e)

UNION CARBIDE AND CARBON CORPORATION AND SUBSIDIARIES CONSOLIDATED

STATEMENT SHOWING QUANTITY OF VANADIUM OXIDE AND AMMONIUM METAVANADATE SOLD DURING THE PERIOD JANUARY 1, 1933 TO AND INCLUDING DECEMBER 31, 1947

VANADIUM OXIDE (Lb. Contained V_2O_5)	Year	AMMONIUM METAVANADATE (Lb. of Material)
217,333.67	1933	2,191
786,785.30	1934	1,080
978,054.40	1935	2,000
377,003.51	1936	1,402
808,397.75	1937	2,431
1,255,222.11	1938	800
1,139,109.70	1939	160
743,673.95	1940	433
369,534.74	1941	921
341,236.00	1942	1/4
247,758.34	1943	63
151,894.65	1944	2,100
313,896.29	1945	2,401
805,962.96	1946	7,827
2,133,047.97	1947	43,194 1/2

Sales of sand tailings to the Manhattan District in the years 1943 and 1944 are not reflected in the figures above. 3

[fol. 4]

EXHIBIT VI

QUANTITATIVE YEARLY TOTAL OF ALL VANADIUM COMPOUNDS OTHER THAN FERROVANADIUM AND VANADIUM PENTOXIDE (1) PRODUCED AND (2) SOLD FROM JANUARY 1, 1933 THROUGH DECEMBER 31, 1947

Year	Lbs. Produced	Lbs. Sold
1933	1,256	1,112
1934	877	1,523
1935	2,159	1,964
1936	3,153	2,496
1937	7,427	6,878
1938	3,566	1,693
1939	32,688	26,769
1940	39,785	31,193
1941	236,346	194,386
1942	908,912	814,189
1943	142,067	131,663
1944	221,934	228,096
1945	189,694	120,739
1946	25,533	39,256
1947	21,458	— 48,573

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[fol. 5]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 2

DEC

IN UNITED STATES DISTRICT COURT

New York, N. Y., May 9, 1950

ANNUAL FERROVANADIUM PRODUCTION
(1933-1944, Inclusive)
Pounds of Vanadium

		High Speed	Open Hearth	Special	Total
1933	Niagara	10,297	-	-	10,297
	Columbiana	-	170,519	-	170,519
	Total	10,297	170,519	-	180,816
1934	Niagara	-	-	-	-
	Columbiana	-	143,021	65,107	208,128
	Total	-	143,021	65,107	208,128
1935	Niagara	-	-	-	-
	Columbiana	17,935	114,250	29,134	161,319
	Total	17,935	114,250	29,134	161,319
1936	Niagara	-	1,287*	-	1,287*
	Columbiana	95,455	68,783	13,548	191,786
	Total	95,455	68,070	13,548	193,073
1937	Niagara	-	-	-	-
	Columbiana	72,397	115,649	113,171	301,217
	Total	72,397	115,649	113,171	301,217
1938	Niagara	-	-	-	-
	Columbiana	43,118	157,745	44,216	245,079
	Total	43,118	157,745	44,216	245,079

*Conversion - Customer's Material.

		High Speed	Open Hearth	Special	Total
1939	Niagara	-	4,934	21,123	26,057
	Columbiana	29,094	133,600	102,658	265,352
	Total	29,094	138,534	123,781	291,409
1940	Niagara	30,310	65,518	-	95,828
	Columbiana	70,322	93,540	183,998	347,860
	Total	100,632	159,058	183,998	443,688
1941	Niagara	3,440	203,638	-	207,078
	Columbiana	135,818	238,765	438,636	813,219
	Alloy	-	302,876	-	302,876
	Total	139,258	745,279	438,636	1,323,173
1942	Niagara	14,854	75,806	20,107	110,767
	Columbiana	17,202	455,987	345,157	818,346
	Alloy	-	-	610,426	610,426
	Total	32,056	531,793	975,690	1,539,539
1943	Niagara	-	-	4,461	4,461
	Columbiana	-	244,011	595,392	839,403
	Alloy	184,911	900,039	-	1,084,953
	Total	184,911	1,144,050	599,853	1,928,817
1944	Niagara	-	-	-	-
	Columbiana	123,890	175,480	367,853	667,223
	Alloy	104,501	208,033	-	312,534
	Total	228,391	383,513	367,853	979,757

E.Fulda/smj

[fol. 6]

7

[fol. 6]

EXHIBIT IV

QUANTITATIVE YEARLY TOTAL OF FERROVANADIUM PRODUCED - 1933 - 1947

Year	Lbs. "V"
1933	184,692
1934	673,434
1935	612,943
1936	632,106
1937	1,039,999
1938	488,259
1939	788,682
1940	1,569,473
1941	2,360,386
1942	2,559,585
1943	2,834,951
1944	2,020,644
1945	1,457,220
1946	741,113
1947	667,224

b

[fol. 6a]

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[fol. 7]

32. That during the period 1933 through 1944 the total production of ferrovanadium by Electro Metallurgical Co. was approximately 7,834,731 pounds contained vanadium.

ANSWER: Said defendants hereby revise their answer to Interrogatory 8(e) propounded by plaintiffs and on file herein and admit that Union Carbide and Carbon Corporation and its United States subsidiaries, consolidated produced the following quantities of ferrovanadium in the years indicated:

Year	Pounds of Contained "V"
1933	180,816
1934	228,128
1935	181,319
1936	193,073
1937	301,217
1938	245,079
1939	292,347
1940	443,688
1941	1,323,641
1942	1,540,524
1943	1,835,628
1944	1,066,508
1945	708,649
1946	458,855
1947	406,701
Total	9,406,173

Said revision is occasioned by clerical errors or different accounting methods used in prior computations.

[fol. 8]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 3

IN UNITED STATES DISTRICT COURT

Plaintiff's Exhibit No. 3

6-c

VANADIUM CORPORATION OF AMERICA

TOTAL DOMESTIC SALES
(Exclusive of Sales to U. S. Government)

FERRO VANADIUM AND VANADIUM PENTOXIDE

YEARS 1933 - 1944 INCLUSIVE

	Ferro Vanadium (In Pounds ctd v)	Vanadium Pentoxide (In Pounds ctd V_2O_5)
1933	363,947.64	23,028.54
1934	466,626.80	18,205.55
1935	477,592.60	93,669.18
1936	703,386.39	20,711.15
1937	827,527.92	126,349.30
1938	282,286.73	989,235.71
1939	796,796.76	1,676,000.24
1940	1,377,131.35	281,172.10
1941	2,588,141.51	358,165.52
1942	2,468,051.80	537,155.21
1943	2,084,792.83	111,153.46
1944	1,970,858.30	192,281.56

8

TOTAL TONNAGE OF ALL VARIETIES OF VANADIUM SOLD IN UNITED STATES 1933 - 1944

	FERROVANADIUM (Lb. Contained V)	VANADIUM OXIDE (Lb. Contained V_2O_5)	AMMONIUM METAVANADATE (Lb. of Material)
1933	272,229	217,334	2,991
1934	215,508	800,183	1,150
1935	215,319	521,112	2,000
1936	231,704	378,128	1,412
1937	291,945	588,670	2,470
1938	125,745	172,733	860
1939	270,577	174,665	2,144
1940	440,494	163,904	233
1941	1,333,440	235,917	2,796
1942	1,312,512	309,763	[illegible]
1943	1,547,440	203,310	23
1944	932,486	148,327	2,200

FBD:cm
5/15/50

ver

EXHIBIT I

QUANTITATIVE YEARLY TOTALS OF THE FERROVANADIUM SOLD IN THE DOMESTIC AND CANADIAN MARKETS, EXCLUSIVE OF SALES TO THE UNITED STATES GOVERNMENT, 1933-1947, AND AS TO EACH YEAR, THE LIST PRICE CHANGES THEREIN

	Open Hearth Grade			Crucible Grade			Primes Grade		
		List Prices per lb sld V			List Prices per lb sld V			List Prices per lb sld V	
Year	lbs sld V	Contract Basis	Spot Basis	lbs sld V	Contract Basis	Spot Basis	lbs sld V	Contract Basis	Spot Basis
1933	379,438	2.60	2.60	83,956	2.70	2.70	752	2.80	2.80
1934	288,361	2.70	2.70	182,902	2.80	2.80	1,362	2.90	2.90
1935	277,689	2.70	2.70	199,364	2.80	2.80	538	2.90	2.90
1936	417,484	2.70	2.70	280,989	2.80	2.80	4,930	2.90	2.90
1937	453,721	2.70	2.70	359,750	2.80	2.80	12,056	2.90	2.90
1938	220,876	2.70	2.80	68,533	2.80	2.90	2,878	2.90	3.00
1939	563,681	2.70	2.80	246,043	2.80	2.90	7,892	2.90	3.00
1940	905,238	2.70	2.80	453,225	2.80	2.90	18,667	2.90	3.00
1941	1,623,097	2.70	2.80	932,661	2.80	2.90	31,582	2.90	3.00
1942	1,380,119	2.70	2.80	1,164,190	2.80	2.90	43,741	2.90	3.00
1943	1,304,034	2.70	2.80	726,510	2.80	2.90	52,247	2.90	3.00
1944	1,193,370	2.70	2.80	693,236	2.80	2.90	44,251	2.90	3.00
1945	742,133	2.70	2.80	635,478	2.80	2.90	12,691	2.90	3.00
1946	413,517	2.70	2.80	357,609	2.80	2.90	1,694	2.90	3.00
1947	422,952	2.70	2.80 (1)	375,586	2.80	2.90 (2)	3,707	2.90	3.00(3)

(1) Contract price advanced to $2.90 and spot price to $3.00 on or about October 1, 1947.

(2) Contract price advanced to $3.00 and spot price to $3.10 on or about October 1, 1947.

(3) Contract price advanced to $3.10 and spot price to $3.20 on or about October 1, 1947.

[fol. 10]

[fol. 11]

VANADIUM CORPORATION OF AMERICA

INVENTORY AND SALES VANADIUM PRODUCTS

YEARS 1933 TO 1944 INCLUSIVE

Year	Ferro Vanadium Lbs. "V" Contained		Vanadium Pentoxide Lbs. "V2O5" Contained	
	Inventory 12/31	Sales for Year	Inventory 12/31	Sales for Year
1933	96,162.97	458,02	99,908.38	23,028.54
1934	226,044.52	543,552.21	149,567.57	18,205.55
1935	382,043.92	481,041.82	97,067.12	189,790.89
1936	256,373.42	759,073.11	93,599.53	107,061.55
1937	237,391.89	1,058,999.39	127,737.94	126,353.53
1938	304,192.88	421,457.98	69,948.01	989,239.93
1939	239,472.73	851,581.98	185,997.29	1,959,653.02
1940	321,570.99	1,491,119.30	451,196.82	632,661.67
1941	117,206.74	2,598,867.65	93,368.18	358,165.52
1942	126,346.04	2,566,130.78	83,533.32	537,176.37
1943	194,073.90	2,761,995.02	186,050.29	111,247.41
1944	77,778.29	2,254,130.59	101,134.58	192,281.84

[fol. 12]

A.F. MORRISON (1899-1921)
HERBERT W. CLARK
ROLAND C. FOERSTER
J. F. SHUMAN
LEON F. DE PREMERY
FORREST A. COBB
WILLIAM L. HOLLOWAY
W. T. FITZGERALD
J. HART CLINTON
FRANCIS C. HUTCHENS
C. COG. IDOR KREIS
BRICE GROSS
JOHN W. McCRYSTLE
ALFRED L. GIBSON
GEORGE F. CLINTON
JAMES SHIFTON PHELPS
CLARENCE E. HUSTO
JOHN PAGE AUSTIN
JAMES J. DURNEY
JOHN L. WECHER, JR.
ROBERT HOWARD
RICHARD J. ARCHER

LAW OFFICES OF
MORRISON, HOHFELD, FOERSTER, SHUMAN & CLARK
CROCKER BUILDING
SAN FRANCISCO 4
TELEPHONE GARFIELD 1-5870

E. HARRIS HOHFELD
RETIRED

November 15, 1950

Joseph L. Alioto, Esq.
111 Sutter Street
San Francisco 4, California

Re: Continental Ore Company et al. v. Union Carbide and Carbon Corporation et al.

Dear Mr. Alioto:

Enclosed herewith is a statement of returned or cancelled sales of ferrovanadium in the United States for the years 1935 through 1944. In the statement previously delivered to you on June 2, 1950, showing ferrovanadium sales in the United States adjustment is not made for these returned or cancelled sales.

Very truly yours,

Herbert W. Clark

HWC:RJA:ap

Enclosure

RETURNED OR CANCELLED SALES OF FERROVANADIUM IN UNITED STATES 1935 - 1944

1935	300	lbs.
1936	300	"
1937	5,300	"
1938	540	"
1942	600	"
1943	85,524	"
1944	5,000	"

[fol. 14]

INTERROGATORY NO. 8(f)

UNION CARBIDE AND CARBON CORPORATION AND SUBSIDIARIES CONSOLIDATED

STATEMENT SHOWING QUANTITY OF FERROVANADIUM (BY GRADES) SOLD, AND AVERAGE UNIT SALES PRICES PERIOD JANUARY 1, 1933 TO AND INCLUDING DECEMBER 1, 1947

	FERROVANADIUM HIGH SPEED		FERROVANADIUM SPECIAL		FERROVANADIUM OPEN HEARTH	
Year	Lbs. V Sold	Average Unit Sales Price Per Lb. V	Lbs. V Sold	Average Unit Sales Price Per Lb. V	Lbs. V Sold	Average Unit Sales Price Per Lb. V
1933	1,627.54	$ 2.867	61,987.84	$ 2.671	222,076.91	$ 2.627
1934	3,259.83	$ 2.890	51,058.58	$ 2.800	172,730.03	$ 2.703
1935	6,244.51	$ 2.894	68,278.95	$ 2.799	148,874.66	$ 2.699
1936	15,536.65	$ 2.902	87,106.73	$ 2.798	141,139.29	$ 2.701
1937	34,446.20	$ 2.889	134,726.42	$ 2.850	146,382.26	$ 2.705
1938	14,648.43	$ 2.923	38,412.44	$ 2.929	83,367.89	$ 2.703
1939	47,291.87	$ 3.141	152,782.84	$ 3.004	168,281.39	$ 2.701
1940	57,190.75	$ 3.198	211,328.83	$ 2.893	249,094.94	$ 2.700
1941	127,305.35	$ 2.980	514,607.52	$ 2.807	816,641.76	$ 2.718
1942	89,563.08	$ 2.945	662,752.39	$ 2.800	663,995.92	$ 2.729
1943	188,885.309	$ 2.927	623,235.89	$ 2.808	946,676.82	$ 2.731
1944	283,427.315	$ 2.904	325,446.46	$ 2.825	532,874.448	$ 2.720
1945	21,418.91	$ 3.029	292,274.64	$ 2.816	338,915.49	$ 2.742
1946	45,607.19	$ 3.009	269,425.90	$ 2.800	177,691.53	$ 2.723
1947	36,427.041	$ 2.997	188,207.84	$ 2.812	268,916.70	$ 2.763

The sale prices received by Electro Metallurgical Company of Canada Ltd., for ferrovanadium sold in Canada are included in arriving at the average unit sales prices shown above.

[fol. 15]

INTERROGATORY NO. 8(i)

Part of Interrogatory

STATEMENT SHOWING AVERAGE UNIT SALES PRICES IN CANADA FOR FERROVANADIUM (BY GRADES) SOLD DURING THE PERIOD JANUARY 1, 1933 TO AND INCLUDING JULY 15, 1949

Year	FERROVANADIUM HIGH SPEED Average Unit Sales Price Per Lb. V	FERROVANADIUM SPECIAL Average Unit Sales Price Per Lb. V	FERROVANADIUM OPEN HEARTH Average Unit Sales Price Per Lb. V
1933	Can $ 3.299	Can $ 3.150	Can $ 3.049
1934	3.300	2.800	2.736
1935	—	2.799	2.669
1936	—	—	2.700
1937	—	—	2.700
1938	2.912	—	2.702
1939	2.904	—	2.700
1940	2.902	3.100	2.700
1941	3.102	3.150	2.923
1942	3.149	—	2.950
1943	3.136	3.110	2.989
1944	3.419	3.110	3.000
1945	3.220	3.110	3.000
1946	3.195	—	2.910
1947	2.995	—	2.829
1948	3.280	—	3.071
1949 (Partial Year January 1 to and Including July 15)	3.280	—	3.071

[fol. 16]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 4

Plaintiff's Exhibit No. 4

ELECTRO METALLURGICAL SALES CORPORATION

TYPED PRICE SHEETS

AMMONIUM META VANADATE

Dated - 12/5/28 - $2.50 per running pound, delivered

6/8/32 - $2.00 per pound, delivered. Freight surcharge for account of Buyer.

12/19/32- $1.90 per pound, delivered.

1/1/35 - Lots of 5,000# and over - $1.90 per lb.
Lots under 5,000# - 2.00 " "

Both prices are quoted f.o.b. our Works or warehouses with freight charges allowed to points within a reasonable distance.

FERROVANADIUM

2/1/28 - Open Hearth Grade: $3.15
Special Grade: 3.40
High Speed Grade: 3.55

All prices per pound contained vanadium, f.o.b. our Works with freight charges allowed to reasonable distance.

12/5/28 - Open Hearth Grade: $3.15
Special Grade: 3.25
High Speed Grade: 3.40

All prices per pound of contained vanadium, f.o.b. our Works with freight charges allowed to reasonable distance.

12/7/31 - Open Hearth Grade: $3.05
Special Grade: 3.15
High Speed: 3.30

All prices per pound of contained vanadium, f.o.b. our Works with freight charges allowed to reasonable distance.

Freight surcharge for account of Buyer.

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Electro Metallurgical Sales Corp.
Typed Price Sheets
(Contd.)

FERROVANADIUM

Dated - 12/19/32 - Open Hearth Grade: $2.60
Special Grade: 2.70
High Speed Grade: 2.80

All prices per pound contained vanadium, f.o.b. our works with freight charges allowed to points within a reasonable distance.

1/1/35 - Open Hearth Grade: $2.70
Special Grade: 2.80
High Speed Grade: 2.90

All prices per pound of contained vanadium, f.o.b. our Works with freight charges allowed to points within a reasonable distance.

VANADIUM OXIDE

Dated - 12/5/28 -

	Spot	Contract
		$1.65
500 lbs. or more	$1.65	
Less than 500 lbs.	1.75	

The above prices are per pound of contained V_2O_5, f.o.b. our Works with freight charges allowed.

12/7/31 -

	Spot	Contract
		$1.25
500 lbs. or more	$1.25	
Under 500 lbs.	1.35	

Above prices per pound of contained V_2O_5, f.o.b. our Works with freight charges allowed. Freight surcharge for account of buyer.

12/19/32

	Spot	Contract
		$1.05
500 lbs. or more	$1.05	
Under 500 lbs.	1.15	

Above prices are per pound contained V_2O_5, f.o.b. our works with freight charges allowed.

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Electro Metallurgical Sales Corp.
Typed Price Sheets
(Contd.)

[fol. 18]

VANADIUM OXIDE

Dated - 1/1/35 -

	Spot	Contract
Any quantity		$1.10
500 lbs. or more	$1.10	
Under 500 lbs.	1.20	

All prices are per pound of contained V_2O_5, f.o.b. our Works with freight charges allowed to points within a reasonable distance.

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[fol. 19]

STANDARD PRICES SPECIFIED IN 1937 CONTRACTS

FERROVANADIUM

Ferrovanadium, in lump form or crushed to as small as 20 mesh and down, in any quantity:

High Speed Grade	$2.90
Special Grade	2.80
Open Hearth Grade	2.70

Delivered f.o.b. cars at works or warehouses of Electro Metallurgical Company, with freight charges allowed to destination, excepting to those points taking a freight rate in excess of the St. Louis, Missouri rate; to such points the equivalent of the freight charges to St. Louis will be allowed.

AMMONIUM META VANADATE

Price per pound $1.90

Delivered f.o.b. cars at works or warehouses of Electro Metallurgical Company, with freight charges allowed to destination, excepting to those points taking a freight rate in excess of the St. Louis, Missouri rate; to such points the equivalent of the freight charges to St. Louis will be allowed.

VANADIUM PENTOXIDE FUSED AND RED CAKE

Price per pound contained V_2O_5 ... $1.10

Delivered f.o.b. cars at works or warehouses of Electro Metallurgical Company, with freight charges allowed to destination, excepting to those points taking a freight rate in excess of the St. Louis, Missouri rate; to such points the equivalent of the freight charges to St. Louis will be allowed.

[fol. 20]

STANDARD PRICES SPECIFIED IN 1938 CONTRACTS

FERROVANADIUM

Ferrovanadium, in lump form or crushed to as small as 20 mesh and down, in any quantity:

High Speed Grade	$2.90
Special Grade	2.80
Open Hearth Grade	2.70

Delivered f.o.b. cars at works or warehouses of Electro Metallurgical Company, with freight charges allowed to destination, excepting to those points taking a freight rate in excess of the St. Louis, Missouri rate; to such points the equivalent of the freight charges to St. Louis will be allowed.

AMMONIUM META VANADATE

5,000 lb. or more	$1.90 per lb.
Less than 5,000 lb	2.00 " "

Delivered f.o.b. cars at works or warehouses of Electro Metallurgical Company, with freight charges allowed to destination, excepting to those points taking a freight rate in excess of the St. Louis, Missouri rate; to such points the equivalent of the freight charges to St. Louis will be allowed.

VANADIUM PENTOXIDE FUSED AND RED CAKE

Price per pound contained V_2O_5 ..... $1.10

Delivered f.o.b. cars at works or warehouses of Electro Metallurgical Company with freight charges allowed to destination, excepting to those points taking a freight rate in excess of the St. Louis, Missouri rate; to such points the equivalent of the freight charges to St. Louis will be allowed.

[fol. 21]

STANDARD PRICES SPECIFIED IN CONTINUING CONTRACTS
DATED DECEMBER 10, 1938, AND LATER

FERROVANADIUM

FERROVANADIUM

	Lump, or crushed to as small as 20 mesh x D	48 Mesh x D	65 to 100 Mesh x D	150 or 200 Mesh x D
High Speed Grade				
In any quantity	$2.90			
Carload Lots		$2.93	$2.94	$2.95
Gross Ton Lots		2.94	2.96	2.98
Less Than Gross Ton Lots,				
Down to 200 Pounds		2.96	3.00	3.02
Less Than 200 Pounds		3.00	3.10	3.15
Special Grade				
In any quantity	$2.80			
Carload Lots		$2.83	$2.84	$2.85
Gross Ton Lots		2.84	2.86	2.88
Less Than Gross Ton Lots,				
Down to 200 Pounds		2.86	2.90	2.92
Less Than 200 Pounds		2.90	3.00	3.05
Open Hearth Grade				
In any quantity	$2.70			
Carload Lots		$2.73	$2.74	$2.75
Gross Ton Lots		2.74	2.76	2.78
Less Than Gross Ton Lots,				
Down to 200 Pounds		2.76	2.80	2.82
Less Than 200 Pounds		2.80	2.90	2.95

Delivered f.o.b. cars Niagara Falls, New York, basis with freight charges allowed to destination, except to those points taking a freight rate in excess of the St. Louis, Missouri rate; to such points the equivalent of the freight charges to St. Louis will be allowed.

AMMONIUM META VANADATE

1,000 lb. or more	$1.90 per lb.
Less than 1,000 lb.	2.00 " "

Delivered f.o.b. cars Niagara Falls, New York, basis, with freight charges allowed to destination, except to those points taking a freight rate in excess of the St. Louis, Missouri rate; to such points the equivalent of the freight charges to St. Louis will be allowed.

VANADIUM PENTOXIDE
FUSED AND RED CAKE

Price per pound contained V_2O_5 ..$1.10

Delivered f.o.b. cars Niagara Falls, New York basis, with freight charges allowed to destination, except to those points taking a freight rate in excess of the St. Louis, Missouri rate; to such points the equivalent of the freight charges to St. Louis will be allowed.

21

21

[fol. 22]

STANDARD PRICES SPECIFIED IN CONTINUING CONTRACTS DATED NOVEMBER 8, 1943 AND CONTINUING THROUGH DECEMBER 31, 1944

FERROVANADIUM

EASTERN ZONE

	Lump	2" x D	1" x D	1/4" x D	20 Mesh x D	65 Mesh x D
HIGH SPEED GRADE						
Carload Lots, Bulk or Packed	$2.90	$2.90	$2.90			
2,000 Lb. Up to Carload, Packed..	2.90	2.90	2.90			
Less Than 2,000 Lb., Packed	2.90	2.90	2.90			
SPECIAL GRADE						
Carload Lots, Bulk or Packed		2.80	2.80		$2.80	
2,000 Lb. Up to Carload, Packed..		2.80	2.80		2.80	
Less Than 2,000 Lb., Packed		2.80	2.80		2.80	
OPEN HEARTH GRADE						
Carload Lots, Bulk or Packed	2.70	2.70	2.70	$2.70		$2.74
2,000 Lb. Up to Carload, Packed..	2.70	2.70	2.70	2.70		2.78
Less Than 2,000 Lb., Packed	2.70	2.70	2.70	2.70		2.80

CENTRAL ZONE

HIGH SPEED GRADE						
Carload Lots, Bulk or Packed	$2.917	$2.917	$2.917			
2,000 Lb. Up to Carload, Packed..	2.924	2.924	2.924			
Less Than 2,000 Lb., Packed	2.924	2.924	2.924			
SPECIAL GRADE						
Carload Lots, Bulk or Packed		2.817	2.817		$2.817	
2,000 Lb. Up to Carload, Packed..		2.824	2.824		2.824	
Less Than 2,000 Lb., Packed		2.824	2.824		2.824	
OPEN HEARTH GRADE						
Carload Lots, Bulk or Packed	2.717	2.717	2.717	$2.717		$2.757
2,000 Lb. Up to Carload, Packed..	2.724	2.724	2.724	2.724		2.764
Less Than 2,000 Lb., Packed	2.724	2.724	2.724	2.724		2.824

WESTERN ZONE

HIGH SPEED GRADE						
Carload Lots, Bulk or Packed	$2.962	$2.962	$2.962			
2,000 Lb. Up to Carload, Packed..	2.985	2.985	2.985			
Less Than 2,000 Lb., Packed	2.985	2.985	2.985			
SPECIAL GRADE						
Carload Lots, Bulk or Packed		2.862	2.862		2.862	
2,000 Lb. Up to Carload, Packed..		2.885	2.885		2.885	
Less Than 2,000 Lb., Packed		2.885	2.885		2.885	
OPEN HEARTH GRADE						
Carload Lots, Bulk or Packed	2.762	2.762	2.762	2.762		2.802
2,000 Lb. Up to Carload, Packed..	2.785	2.785	2.785	2.785		2.845
Less Than 2,000 Lb., Packed	2.785	2.785	2.785	2.785		2.985

All prices mentioned above are per pound of vanadium contained in the alloy.

Delivered f.o.b. cars works or warehouses of the Seller with railroad freight charges allowed to destination (in the respective zones).

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[fol. 23]

STANDARD PRICES SPECIFIED IN CONTINUING CONTRACTS DATED NOVEMBER 8, 1943 AND CONTINUING THROUGH DECEMBER 31, 1944

(Continued)

AMMONIUM META VANADATE

1,000 lbs. or more	$1.90 per lb.
Less than 1,000 lbs.....	2.00 " "

Delivered f.o.b. cars works or warehouses of the Seller with railroad freight charges allowed to destination.

VANADIUM PENTOXIDE
FUSED AND RED CAKE

In Any Quantity	$1.10 per pound contained V205

Delivered f.o.b. cars works or warehouses of the Seller with railroad freight charges allowed to destination.

23

[fol. 24]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 5

[Handwritten notation—VCA]

1933 FERRO ALLOY PRICES 12-20-32 Sheet 5

FERRO VANADIUM

CONTRACT AND SPOT	Grade "A" Open Hearth	$2.60
	Grade "B" Crucible	2.70
	Grade "C" Primos	2.80

Per pound of contained Vanadium, F.O.B. cars Bridgeville, Penna. with Freight allowed and prepaid to points east of the Mississippi and north of Baltimore. (SPOT:— freight allowed only on quantities of 50# and over)

VANADIUM PENTOXIDE (TECHNICAL)

Ton lots and contract	$1.05
Less ton lots, spot	1.15

Per pound of V205 contained, F.O.B. Bridgeville, Penna. with freight allowed and prepaid to points east of the Mississippi River and north of Baltimore (Spot:— freight allowed on quantities of 50# and up)

AMMONIUM META VANADATE (TECHNICAL)

Spot and contract	$1.90

Per pound net, F.O.B. Bridgeville, Penna. with freight allowed and prepaid to points east of the Mississippi River and north of Baltimore. (Spot:— freight allowed on quantities of over 50#)

TERMS:— NET CASH THIRTY DAYS — NEW YORK EXCHANGE

[fol. 25]

PAGE FIVE 12/18/33

FERRO VANADIUM

[Handwritten notation—1934]

CONTRACT & SPOT PRICES

Grade "A" Open Hearth	$2.70	per lb contained Vanadium
Grade "B" Crucible	2.80	" " " "
Grade "C" Primos	2.90	" " " "

F.O.B. cars Bridgeville, Penna. with freight allowed and prepaid to points east of the Mississippi River and north of Baltimore. (Freight allowed only on quantities of 50# and over.)

VANADIUM PENTOXIDE (TECHNICAL)

Contract, any quantity and 500# or more, spot	$1.10
Under 500#, spot	1.20

Per pound of contained V205 F OB Bridgeville, Penna. with freight allowed and prepaid to points east of the Mississippi River and north of Baltimore. (Freight allowed only on quantities of 50# and over.)

AMMONIUM METAL VANADATE (TECHNICAL)

Spot and contract $2.00

Per pound net F.O.B. Bridgeville, Penna. with freight allowed and prepaid to points east of the Mississippi River and north of Baltimore. (Freight allowed on quantities of over 50#.)

LOW CARBON FERRO TITANIUM

Contract and spot ..... $1.40 per lb. contained Ti

~~F.O.B. Suspension Bridge, N. Y. or~~ Bridgeville, Pa.

TERMS:— NET CASH 30 DAYS — NEW YORK FUNDS

[fol. 26]

FERRO VANADIUM FERRO VANADIUM

[Handwritten notation—1935]

CONTRACT AND SPOT PRICES

Grade "A" Open Hearth	$2.70 per lb contained Vanadium
Grade "B" Crucible	2.80 per lb contained Vanadium
Grade "C" Primos	2.90 per lb contained Vanadium

F.O.B. cars Bridgeville, Penna., with freight allowed and prepaid to points east of the Mississippi River and north of Baltimore.
(Freight allowed only on quantities of 50 lbs and over)

VANADIUM PENTOXIDE (TECHNICAL) VANADIUM PENTOXIDE

Contract, any quantity
and 500# or more, spot $1.10

Under 500#, spot 1.20

Per pound of contained V_2O_5
F.O.B. Bridgeville, Penna., with freight allowed and prepaid to points east of the Mississippi Rr and north of Baltimore.
(Freight allowed only on quantities of 50# and over)

AMMONIUM META VANADATE (TECHNICAL) AMMONIUM VANADATE

Spot and Contract $2.00

Per pound net
F.O.B. Bridgeville, Penna., with freight allowed and prepaid to points east of the Mississippi Rr and north of Baltimore.
(Freight allowed on quantities of 50# and over)

LOW CARBON FERRO TITANIUM LOW CARBON FERRO TITANIUM

Contract and Spot .....$1.40 per lb. contained Ti

F.O.B. Bridgeville, Pennsylvania

TERMS: NET CASH THIRTY DAYS—NEW YORK FUNDS UNLESS OTHERWISE SPECIFIED

[fol. 27]

[Handwritten notation—1936]

FERRO VANADIUM FERRO VANADIUM

CONTRACT & SPOT PRICES

Grade "A" Open Hearth .... $2.70 per pound of contained Vanadium
Grade "B" Crucible ..... 2.80 " " " " "
Grade "C" Primos ..... 2.90 " " " " "

F.O.B. Cars Bridgeville, Penna. with freight allowed and prepaid to points east of the Mississippi River and north of Baltimore.
(Freight allowed only on quantity of 50# and over)

VANADIUM PENTOXIDE, TECHNICAL VANADIUM PENTOXIDE, TECH.

Contract, any quantity,
and 500# or more, spot $1.10

Under 500#, spot 1.20

Per pound of contained V_2O_5
F.O.B. Bridgeville, Penna. with freight allowed and prepaid to points east of the Mississippi River and north of Baltimore.
(Freight allowed only on quantities of 50# and over)

AMMONIUM META VANADATE (TECHNICAL) AMMONIUM VANADATE

Contract and spot $2.00

1,000# or over 1.90

Contract minimum over period of one year
1,000 ..... 1.90

All per pound net, F.O.B. Bridgeville, Penna. with freight allowed and prepaid to points east of the Mississippi River and north of Baltimore.
(Freight allowed on quantities of 50# and over)

TERMS: (NET CASH THIRTY DAYS—NEW YORK FUNDS UNLESS OTHERWISE SPECIFIED—ON ALL PRODUCTS LISTED IN THIS PRICE LIST).

[fol. 28]

December 10, 1936

VANADIUM PENTOXIDE, TECHNICAL

Air Dried
and
Fused

Contract, any quantity, and
500# or more, spot .. $1.10 per pound of contained V2O5

Spot, 1 to 9# lots .... 1.25 per pound net
" 10 to 499# ..... 1.15 per pound contained V2O5

F.O.B. Bridgeville, Penna. with freight allowed and prepaid to points east of the Mississippi River and north of Baltimore.
(freight allowed only on quantities of 50# and over)

Terms:—net cash 30 days

[fol. 29]

December 10, 1936

FERRO VANADIUM
CONTRACT AND SPOT PRICES

Grade "A" Open Hearth .... $2.70 per pound of contained Vanadium
" "B" Crucible ..... 2.80 per pound of contained Vanadium
" "C" Primos ..... 2.90 per pound of contained Vanadium

F.O.B. cars Bridgeville, Penna. with freight allowed and prepaid to points east of the Mississippi River and north of Baltimore.
Freight allowed only on quantities of 50# and over.

Terms: Net cash 30 days.

[fol. 30]

198th
Price List
effective 1/1/38

PART V - ART I

	1	1.1	1.2
Grade "A" Open Hearth	35/40	2" Ins.	3.70 Frt.
Grade "B" Crucible	35/45	3.90 "	4.10 "
Grade "C" Primos	35/45	4.05 "	4.25

	Contract Prices	Spot Prices
Grade "A" Open Hearth	$ 2.70	$ 2.90
Grade "B" Crucible	2.80	3.00
Grade "C" Primos	2.90	3.00

Contract 100 M x d
200# & Up — Less than 200#

All bar round of centrifugal Vanadium Oil — $2.81½ — 3.14
Cruc. — 2.91½ — 3.24
Primos — 3.01½ — 3.34

Spot — 10 ¢ & ctd 0 higher.

...s. ... Steel Works, Bridgeville, Pa.
...ight or mill and allowed, on 50# and over except to points ...
...rate in excess of the St. Louis, Mo. rate.
...ative freight allowance based on rate to St. Louis, Mo.

30

Terms: Net cash thirty days

Page 16
1238

30

34

[fol. 31]

1938
Price List
Effective 1/1/38

VANADIC PENTOXIDE, TECHNICAL

Air Dried or Fused form

Contract Price

Any quantity ..... $1.10 per pound of contained V_2O_5

Spot Prices

500# and over ..... $1.15 per pound contained V_2O_5

10 to 499# ..... 1.20 per pound contained V_2O_5

9# and under ..... 1.25 per pound net

SCK 1/2/38

V205 - Fused

V_2O_5	—	98.10
Fe_2O_3	—	.33
Al_2O_3	—	.18
$CaSO_3$	—	.21
SO_3	—	.34
Na_2O	—	5.84
H_2O	—	none
CuO	—	trace
P_2O_5	—	.009
C	—	.03

F.O.B. Our Works, Bridgeville, Pa. PCD 1/2/38
Freight prepaid and allowed, on 50# and over, except to points taking a rate in excess of the St. Louis, Mo. rate.
Maximum freight allowance based on rate to St. Louis, Mo.

Terms: Net cash thirty days

Crushing Extras

Fused 30 mesh .06 — SCK 1/2/37

Air dried 40 mesh - no extra chg. HEDS 1/2/37
Cancel Item C

Price 17
1938

31

[fol. 32]

1939
Price List
Effective 1/1/36

FERRO VANADIUM

	% V	% Si	% C
Grade "A" Open Hearth	35/40	12 max.	3.50 max.
Grade "B" Crucible	35/45	3.50 max.	.50 max.
Grade "C" Primos	35/45	1.25 max.	.20 max.

	CONTRACT PRICES	SPOT PRICES
Grade "A" Open Hearth	$2.70	$2.80
Grade "B" Crucible	2.80	2.90
Grade "C" Primos	2.90	3.00

All per pound of contained Vanadium

F.O.B. our works, Bridgeville, Pennsylvania.
Freight prepaid and allowed, except to points taking a rate in excess of the St. Louis, Missouri rate, on fifty pounds and over. Maximum freight allowance based on rate to St. Louis, Missouri.

Terms: Net cash thirty days.

[fol. 33]

1939
Price List
Effective 1/1/39

VANADIUM PENTOXIDE, TECHNICAL

Air Dried or Fused Form

CONTRACT PRICE

Any quantity ..... $1.10 per pound of contained V_2O_5

SPOT PRICE

500 pounds and over ..	$1.15	per pound of contained V_2O_5
10 to 499 pounds	1.20	per pound of contained V_2O_5
9 pounds and under ..	1.25	per pound net

F.O.B. our works, Bridgeville, Pennsylvania.
Freight prepaid and allowed on quantities of fifty pounds and over except to points taking a rate in excess of the St. Louis, Missouri rate. Maximum freight allowance based on rate to St. Louis, Missouri.

Terms: Net cash thirty days.

[fol. 34]

V

1940
Price List
Effective 1/1/40

FERRO VANADIUM

Lump, crushed or ground as fine as 20 mesh x down

	% V	% Si	% C
Grade "A" Open Hearth	35/40	12 max.	3.50 max.
Grade "B" Crucible	35/45	3.50 max.	.50 max.
Grade "C" Primos	35/45	1.25 max.	.30 max.

	CONTRACT PRICES	SPOT PRICES
Grade "A" Open Hearth	$2.70	$2.80
Grade "B" Crucible	2.80	2.90
Grade "C" Primos	2.90	3.00

Prices per pound of contained Vanadium

F.O.B. cars Bridgeville, Pennsylvania. Freight allowed on quantities of twenty-five pounds and over provided that the freight rate does not exceed the rate to St. Louis, Missouri. In such case the maximum freight allowance will be based on the freight rate to St. Louis Missouri.

Terms: Net cash thirty days

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1940
Price List
Effective 1/1/40

VANADIUM PESTICIDE TECHNICAL

Air Dried or Fused Form

CONTRACT PRICE

Any quantity .....$1.10 per pound contained V205

SPOT PRICE

500 pounds and over.....$1.15 per pound contained V205
10 to 499 pounds ..... 1.20 per pound contained V205
Under 10 pounds ..... 1.25 per pound net

STANDARD SIZES:

Air Dried - Powder

Fused - Crushed approx. 3/4" x down, however will furnish material at no extra crushing charge for sizes down to and including 1/4" x down. Crushing extras for smaller sizes as follows:

	8 Mesh x down	20 Mesh x down
Ton Lots	$0.015 per lb ctd V205	$0.0175 per lb ctd V205
Less Ton Lots		
200 pounds and up	0.02 per lb ctd V205	0.03 per lb ctd V205
Under 200 pounds	0.03 per lb ctd V205	0.04 per lb ctd V205

For sizes smaller than 20 mesh x down refer to New York office.

F.O.B. cars Bridgeville, Pennsylvania. Freight allowed on quantities of twenty-five pounds and over provided that the freight rate does not exceed the rate to St. Louis, Missouri. In such case the maximum freight allowance will be based on the freight rate to St. Louis, Missouri.

Terms: Net cash thirty days.

[fol. 36]

VANADIUM CORPORATION OF AMERICA

Price List
Effective
January 1st, 1941

FERRO VANADIUM

Lump, crushed or ground as fine as 20 mesh x down

	% V	% Si	% C
Grade "A" Open Hearth	35/40	12 max.	3.50 max.
Grade "B" Crucible	35/45	3.50 max.	.50 max.
Grade "C" Primos	35/45	1.25 max.	.20 max.

	CONTRACT PRICES	SPOT PRICES
Grade "A" Open Hearth	$2.70	$2.80
Grade "B" Crucible	2.80	2.90
Grade "C" Primos	2.90	3.00

Prices per pound of contained Vanadium

F.O.B. cars Bridgeville, Pennsylvania. Freight allowed on quantities of twenty-five pounds and over provided that the freight rate does not exceed the rate to St. Louis, Missouri. In such case the maximum freight allowance will be based on the freight rate to St. Louis, Missouri.

Terms: Net cash thirty days

NOTE: The above prices shall be in effect until March 31, 1941 and thereafter for each calendar quarter-year unless revised in writing by Seller at least fifteen days prior to such quarter-year.

VANADIUM CORPORATION OF AMERICA

Price List
Effective
January 1st, 1941

VANADIUM PENTOXIDE, TECHNICAL

Air Dried or Fused Form

CONTRACT PRICE

Any quantity - - - - - - - - - - - - - - - - $1.10 per pound contained V205

SPOT PRICE

500 pounds and over - - - - - - - - - - - -	$1.15 per pound contained V205
10 to 499 pounds - - - - - - - - - - - - -	1.20 per pound contained V205
Under 10 pounds - - - - - - - - - - - - -	1.25 per pound net

STANDARD SIZES:

Air Dried - Powder

Fused - Crushed approx. 3/4" x down, however will furnish material at no extra crushing charge for sizes down to and including 1/4" x down. Crushing extras for smaller sizes as follows:

Ton Lots	8 Mesh x down $0.015 per lb. ctd. V205	20 Mesh x down $0.0175 per lb. ctd. V205
Less Ton Lots		
200 pounds and up	0.02 per lb. ctd. V205	0.03 per lb. ctd. V205
Under 200 pounds	0.03 per lb. ctd. V205	0.04 per lb. ctd. V205

For sizes smaller than 20 mesh x down refer to New York Office.

F.O.B. cars Bridgeville, Pennsylvania. Freight allowed on quantities of twenty-five pounds and over provided that the freight rate does not exceed the rate to St. Louis, Missouri. In such case the maximum freight allowance will be based on the freight rate to St. Louis, Missouri.

Terms: Net cash thirty days

NOTE: The above prices shall be in effect until March 31, 1941 and thereafter for each calendar quarter-year unless revised in writing by Seller at least fifteen days prior to such quarter-year.

[fol. 38]

VANADIUM CORPORATION OF AMERICA

Price List
Effective
January 1st, 1942

FERRO VANADIUM

Lump, crushed or ground as fine as 20 mesh x down

	% V	% Si	% C
Grade "A" Open Hearth	35/40	12 max.	3.50 max.
Grade "B" Crucible	35/45	3.50 max.	.50 max.
Grade "C" Primos	35/45	1.25 max.	.20 max.

	CONTRACT PRICES	SPOT PRICES
Grade "A" Open Hearth	$ 2.70	$ 2.80
Grade "B" Crucible	2.80	2.90
Grade "C" Primos	2.90	3.00

Prices per pound of contained Vanadium

F.O.B. cars Bridgeville, Pennsylvania. Freight allowed on quantities of twenty-five pounds and over provided that the freight rate does not exceed the rate to St. Louis, Missouri. In such case the maximum freight allowance will be based on the freight rate to St. Louis, Missouri.

Terms: Net cash thirty days

NOTE: The above prices shall be in effect until March 31, 1942 and thereafter for each calendar quarter-year unless revised in writing by Seller at least fifteen days prior to such quarter-year.

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38

VANADIUM CORPORATION OF AMERICA

Price List
Effective
January 1st, 1942

VANADIUM PENTOXIDE, TECHNICAL

Air Dried or Fused Form

CONTRACT PRICE

Any quantity - - - - - - - - - - - - - - - - - $1.10 per pound contained V205

SPOT PRICE

500 pounds and over - - - - - - - - - - - - $1.15 per pound contained V205
10 to 499 pounds - - - - - - - - - - - - - - 1.20 per pound contained V205
Under 10 pounds - - - - - - - - - - - - - - - 1.25 per pound net

STANDARD SIZES:
Air Dried - Powder
Fused - Crushed approx. 3/4" x down, however will furnish material at no extra crushing charge for sizes down to and including 1/4" x down. Crushing extras for smaller sizes as follows:

	8 Mesh x down	20 Mesh x down
Ton Lots:	$0.015 per lb. std. V205	$0.0175 per lb. std. V205
Less Ton Lots		
200 pounds and up	0.02 per lb. std. V205	0.03 per lb. std. V205
Under 200 pounds	0.03 per lb. std. V205	0.04 per lb. std. V205

For sizes smaller than 20 mesh x down refer to New York Office.

F.O.B. cars Bridgeville, Pennsylvania. Freight allowed on quantities of twenty-five pounds and over provided that the freight rate does not exceed the rate to St. Louis, Missouri. In such case the maximum freight allowance will be based on the freight rate to St. Louis, Missouri.

Terms: Net cash thirty days

NOTE: The above prices shall be in effect until March 31, 1942 and thereafter for each calendar quarter-year unless revised in writing by Seller at least fifteen days prior to such quarter-year.

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[fol. 40]

VANADIUM CORPORATION OF AMERICA

Price List
Effective
January 1st, 1943

FERRO VANADIUM

Lump, crushed or ground as fine as 20 mesh x down

	% V	% Si	% C
Grade "A" Open Hearth	35/40	12 max.	3.50 max.
Grade "B" Crucible	35/45	3.50 max.	.50 max.
Grade "C" Primos	35/45	1.25 max.	.20 max.

	CONTRACT PRICES	SPOT PRICES
Grade "A" Open Hearth	$ 2.70	$ 2.80
Grade "B" Crucible	2.80	2.90
Grade "C" Primos	2.90	3.00

Prices per pound of contained Vanadium

F.O.B. cars Bridgeville, Pennsylvania. Freight allowed on quantities of twenty-five pounds and over provided that the freight rate does not exceed the rate to St. Louis, Missouri. In such case the maximum freight allowance will be based on the freight rate to St. Louis, Missouri.

Terms: Net cash thirty days

NOTE: The above prices shall be in effect until March 31, 1942 and thereafter for each calendar quarter-year unless revised in writing by Seller at least fifteen days prior to such quarter-year.

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[fol. 41]

VANADIUM CORPORATION OF AMERICA

Price List
Effective
January 1st, 19

VANADIUM PENTOXIDE, TECHNICAL

Air Dried or Fused Form

CONTRACT PRICE

Any quantity - - - - - - - - - - - - - - - - - $1.10 per pound contained V_2O_5

SPOT PRICE

500 pounds and over - - - - - - - - - - - - $1.15 per pound contained V_2O_5
10 to 499 pounds - - - - - - - - - - - - - - 1.20 per pound contained V_2O_5
Under 10 pounds - - - - - - - - - - - - - - 1.25 per pound net

STANDARD SIZES:

Air Dried - Powder

Fused - Crushed approx. 3/4" x down, however will furnish material at no extra crushing charge for sizes down to and including 1/4" x down. Crushing extras for smaller sizes as follows:

	8 Mesh x down	20 Mesh x down
Ton Lots	$0.015 per lb. std. V_2O_5	$0.0175 per lb. std. V_2O_5
Less Ton Lots		
200 pounds and up	0.02 per lb. std. V_2O_5	0.03 per lb. std. V_2O_5
Under 200 pounds	0.03 per lb. std. V_2O_5	0.04 per lb. std. V_2O_5

For sizes smaller than 20 mesh x down refer to New York Office.

F.O.B. cars Bridgeville, Pennsylvania. Freight allowed on quantities of twenty-five pounds and over provided that the freight rate does not exceed the rate to St. Louis, Missouri. In such case the maximum freight allowance will be based on the freight rate to St. Louis, Missouri.

Terms: Net cash thirty days

NOTE: The above prices shall be in effect until March 31, 1942 and thereafter for each calendar quarter-year unless revised in writing by Seller at least fifteen days prior to such quarter-year.

[fol. 42]

VANADIUM CORPORATION OF AMERICA

Price List
Effective
January 1st, 19..

FERRO VANADIUM

Lump, crushed or ground as fine as 20 mesh a drum

	$ V	$ Si	$ C
Grade "A" Open Hearth	35/40	12 max	3.50 max
Grade "B" Crucible	35/45	3.50 max.	.50 max
Grade "C" Prime	35/45	.25 max.	.20 max

	CONTRACT PRICES	SPOT PRICES
Grade "A" Open Hearth	$ 2.70	$ 2.80
Grade "B" Crucible	2.90	2.90
Grade "C" Prime	2.90	3.00

Prices per pound of contained Vanadium

F.O.B. cars Bridgeville, Pennsylvania. Freight allowed on quantities of twenty-five pounds and over, provided the freight rate does not exceed the rate to St. Louis, Missouri in such case, the maximum freight allowance will be based on the freight rate to St Louis, Missouri.

Terms: Net cash thirty days

NOTE: The above prices shall be in effect until March 31st and thereafter for each calendar quarter-year, unless revised in writing by Seller, at least fifteen days prior to such quarter-year.

42

[redacted]

Price List
Effective
January 1, 19[redacted]

[redacted]

Air Dried or Fresh Cure

[redacted]

Any quantity - $[redacted] per pound contained [redacted]

[redacted]

500 pounds and over - - - - - - - - - - - - - - - - - $[redacted] per pound contained [redacted]
10 to 499 pounds - - - - - - - - - - - - - - - - - - [redacted] per pound contained [redacted]
Under 10 pounds - - - - - - - - - - - - - - - - - - [redacted] per pound net

[redacted]:
[redacted] - Fresher

Fresh - Straight square, 3/8" x 6mm, however will furnish material of no extra stemming charge for sizes down to and including 1/8" x 6mm. Stemming extras for smaller sizes as follows:

	3 inch x 6mm	2 inch x 6mm
Tin Lots	$0.01[redacted] per lb. del. [redacted]	$0.01[redacted] per lb. del. [redacted]
Less Tin Lots		
[redacted] and up	0.02 per lb. del. [redacted]	0.03 per lb. del. [redacted]
Under [redacted] pounds	0.03 per lb. del. [redacted]	0.04 per lb. del. [redacted]

For sizes smaller than 50 each x 6mm refer to Raw Tract Office.

F.O.B. cars Bridgeville, Pennsylvania. Freight allowed on quantities of twenty-five pounds and over provided that the freight rate does not exceed the rate to St. Louis Missouri. In such cases the maximum freight allowance will be based on the freight rate to St. Louis, Missouri.

Terms: Net cash thirty days

NOTE: The above prices shall be in effect until March 31, 19[redacted] and thereafter for each calendar quarter-year unless revised [redacted] by us to take effect [redacted] days prior to each quarter-year

[fol. 44]

VANADIUM CORPORATION OF AMERICA

Price List
Effective
January 1, 1945

FERRO VANADIUM

Lump, crushed or ground so fine as 20 Mesh x down

	% V	% Si	% C
Grade "A" Open Hearth	35/40	12 max.	3.50 max.
Grade "B" Crucible	35/45	3.50 max.	.50 max.
Grade "C" Primo	35/45	1.25 max.	.20 max.

	CONTRACT PRICES	SPOT PRICES
Grade "A" Open Hearth	$ 2.70	$ 2.80
Grade "B" Crucible	2.80	2.90
Grade "C" Primo	2.90	3.00

Prices per pound of contained Vanadium

F.O.B. cars Bridgeville, Pennsylvania. Freight allowed on quantities of twenty-five pounds and over, provided that the freight rate does not exceed the rate to St. Louis, Missouri. In such case, the maximum freight allowance will be based on the freight rate to St. Louis, Missouri.

Terms: Net cash thirty days

NOTE: The above prices shall be in effect until March 31, 1945 and thereafter for each calendar quarter-year, unless revised in writing by Seller at least fifteen days prior to each quarter-year.

[fol. 45]

VANADIUM CORPORATION OF AMERICA

Price List
Effective
January 1, 1943

VANADIUM PENTOXIDE, TECHNICAL

Air Dried or Fused Fine

CONTRACT PRICE

Any quantity - $1.10 per pound contained V_2O_5

SPOT PRICE

500 pounds and over - - - - - - - - - - - - - - - - - -	$1.15 per pound contained V_2O_5
10 to 499 pounds - - - - - - - - - - - - - - - - - - -	1.20 per pound contained V_2O_5
Under 10 pounds -	1.25 per pound net

STANDARD SIZES:

Air Dried - Powder

Fused - Crushed approx. 3/4" x down, however will furnish material at no extra crushing charge for sizes down to and including 1/4" x down. Crushing extras for smaller sizes as follows:

	8 Mesh x down	20 Mesh x down
Ton lots	$0.015 per lb. cntd. V_2O_5	$0.0175 per lb. cntd. V_2O_5
Less Ton lots		
200 lbs. and up	0.02 per lb. cntd. V_2O_5	0.03 per lb. cntd. V_2O_5
Under 200 lbs.	0.03 per lb. cntd. V_2O_5	0.04 per lb. cntd. V_2O_5

For sizes smaller than 20 mesh x down refer to New York Office.

F.O.B. cars Bridgeville, Pennsylvania. Freight allowed on quantities of twenty-five pounds and over provided that the freight rate does not exceed the rate to St. Louis, Missouri. In such case the maximum freight allowance will be based on the freight rate to St. Louis, Missouri.

Terms: Net cash thirty days.

NOTE: The above prices shall be in effect until March 31, 1943 and thereafter for each calendar quarter-year unless revised in writing by Seller at least fifteen days prior to such quarter-year.

43

[fol. 46]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 10

IN UNITED STATES DISTRICT COURT

U.S.D.C. 2-2

734 B

VANADIUM CORPORATION OF AMERICA

PURCHASING DEPARTMENT

420 LEXINGTON AVE., NEW YORK, N. Y.

P. A. E. T. COPY

Electro Metallurgical Sales Corporation — November 18, 1938.

30 East 42nd Street — Order No. BNY 3088

New York City — Inq. No.

PLEASE FURNISH US THE FOLLOWING MATERIAL SUBJECT TO ALL CONDITIONS PRINTED ON REVERSE SIDE OF THIS ORDER. PREPARE ONE SET OF SHIPPING INVOICE IN TRIPLICATE AND BILL OF LADING SHOWING ABOVE ORDER NUMBER SHIPPED DIRECT TO BRIDGEVILLE, PA.

Material - "Electromet" Brand Vanadium Pentoxide (V_2O_5) as previous.

Quantity - Approximately One Hundred Thirty Thousand (130,000) pounds V_2O_5

Price: - Eighty cents ($.80) per pound of V_2O_5, f.o.b. cars at Collier's works, with freight allowed to Bridgeville, Pa., or delivered Bridgeville, Pa. by truck.

Terms - - Net cash thirty (30) days from date of invoice.

Delivery - To be shipped at once -
25,000 to 30,000 pounds from Columbiana via truck
90,000 to 100,000 pounds from Uravan, Colorado via freight

Confirming arrangements made between Mr. John Jamin and Mr. P. J. Gibbons.

11/18 - 10,212 # Chg — 8167.60 — 38-11-357
11/19 - 9,838.910 " — 7880.68 — 38-11-357
11/19 - 9,762.600 " — 7990.14 — 38-11-357
11/21 - 130,070 lbs — 104,056.50 — 38-11-426
734 of 2 >) — 104,091.82

DATE SAID MATERIAL PLEASE WITH ABOVE ORDER NUMBER. SEPARATE ACKNOWLEDGMENT COPY OF THIS ORDER STATING WHEN SHIPMENT WILL BE MADE.

Ship to _____

VANADIUM CORPORATION OF AMERICA

VANADIUM CORPORATION OF AMERICA

BRIDGEVILLE, PA.

PURCHASING AGENT

46

[fol. 47]

G. I. Ex. No. 584

738 D

VANADIUM CORPORATION OF AMERICA

PURCHASING DEPARTMENT

420 LEXINGTON AVE., NEW YORK, N. Y.

R. A. H. T. COPY

Electro Metallurgical Sales Corporation — June 30, 1939.

30 East 42nd Street — BNY 3797

New York City — Inq. No. P. J. G.

P. J. Gibbons

PLEASE FURNISH US THE FOLLOWING MATERIAL SUBJECT TO ALL CONDITIONS PRINTED ON REVERSE SIDE OF THIS ORDER, PURCHASED ON BASIS OF SHIPPERS' ANALYSIS, IN TRIPLICATE AND BILL OF LADING SHOWING ABOVE ORDER NUMBER SUBMIT TO [redacted]. 420 Lexington Avenue, New York City

Material:	Vanadium Pentoxide (V_2O_5) - to be shipped from Newark
Quantity:	One (1) car - 10,920 lbs. net - 97380.30 Lbs. Ninety Five Cents (.95)
Price:	~~Eighty Cents ($.80)~~ per pound of contained V_2O_5 f.o.b. Bridgeville, Pa.
Terms:	Net cash thirty (30) days from date of invoice.
Delivery:	To be shipped at once.

Ship on B/L #. 61910 from Newark
Inst. on B/L #-CL.3-WHP-W.I.E-1.#Va

Confirming arrangements made between Mr. John Swain and Mr. P. J. Gibbons.

7/11 - 62.218.20 - 39-8-284

MAKE EACH PACKAGE PLAINLY WITH ABOVE ORDER NUMBER. DUPLY ACKNOWLEDGE RECEIPT OF THIS ORDER STATING WHEN SHIPMENT WILL BE FORWARDED.

Ship via L.V.R.R.

TO

VANADIUM CORPORATION OF AMERICA

BRIDGEVILLE, PA

VANADIUM CORPORATION OF AMERICA

P. J. Gibbons

PURCHASING AGENT

[fol. 48]

In United States District Court

Plaintiffs' Exhibit No. 14

IN UNITED STATES DISTRICT COURT

Item 9 - Purchases

Year	Commodity	Price		
1933	Vanadium Ore Concentrates	$ .80 per Lb. V205	Delivered	
1934	Flue Dust	.30 " " "	Shipping Point	
1935	Vanadium Ore Concentrates	.80 " " "	Delivered	
1936	" " "	.80 " " "	"	
	" Pentoxide	.80 " " "	"	Plus Emergency Freight Charge
1937	" "	.80 " " "	"	" "
1938	" "	1.10 " " "	"	
	" "	.80 " " "	"	
1939	" "	1.18 " " "	"	Less Freight
	" "	.80 " " "	"	
	" "	.65 " " "	"	
1940	" "	.75 " " "	"	
	Vanadium Bearing Petroleum Residue	.60 " " "	"	Less Freight
	Catalytic Mass Waste Material	.35 " " "	"	
	Ammonium Meta Vanadate	1.90 " " "	"	
1941	Flue Dust	.50 " " "	New York	
	Ammonium Meta Vanadate	1.90 " " "	Delivered	
	Vanadium Bearing Petroleum Residue	.50 " " "	New York	
	Sodium Vanadate	.80 " " "	Delivered	
	Flue Dust	.60 " " "	New York	
	" "	.665 " " "	" "	Plus 1/2 analysis cost
	Vanadium Bearing Petroleum Residue	.55 " " "	" "	
	" " Slag	.60 " " "	" "	
	Calcium Vanadate	6.50 per Lb.	Delivered New York	
	Vanadium Bearing Flue Dust	.65 " " V205	New York Plus 1/2 analysis cost	
1942	Flue Dust	.60 " " "	New York	
	Sodium Vanadate	.80 " " "	Delivered Less Freight	
	Vanadium Oxide	.95 " " "	"	
	" Bearing Residue	.55 " " "	New York	
	Flue Dust (2,000 Lbs.)	10.00 for lot	Delivered Buffalo	
	" " Trial Lot	No Charge	New York	
	Vanadium Bearing Petroleum Residue	.55 per Lb. V205	Delivered New York	
	" Ashes	.50 " " "	FOB Peru Ocean Freight Ins.Duties	
	Gas Dried Red Cake	1.10 " " "	Delivered	
	Vanadium Slag	.55 " " "	Shipping Point Plus Prepaid Freight	
	Vanadic Acid	1.10 " " "	Delivered	
	Furnace Bottoms	.60 " " "	"	
	Flue Dust	.605 " " "	Bayonne, N. J.	

Year	Commodity	Price
1942 (Cont'd)	Fused Vanadium Oxide	$ 1.00 per Lb. V_2O_5 Delivered Plus 1/2 Analysis Cost
	Vanadium Concentrates	1.00 " " " " " " "
	" Pentoxide	.60 " " " "
	Vanadium Petroleum Residue	.40 " " " New York
	Sodium Vanadate	.60 " " " Delivered Less Freight
1943	Vanadium Pentoxide	1.00 " " " "
	Flue Dust	.50 " " " Bayonne, N. J.
	" "	.60 " " " " " "
	" "	.40 " " " " " "
	Vanadium Bearing Slag	.50 " " " Shipping Point Plus 1/2 Analysis Cost
	Vanadium Bearing Slag	.40 " " " " " "
	Flue Dust	.40 " " " New York
	" "	.60 " " " Shipping Point
	Sodium Vanadate	.60 " " " Delivered Less Freight
	Flue Dust	.45 " " " New York
	" "	.25 " " " Shipping Point
	Vanadium Ashes	.50 " " " Peru, S.A. Ocean Freight Surcharges, etc.
	Flue Dust	.20 " " " Bayonne, N. J.
	Vanadium Residue	.50 " " " Delivered Less Freight
	Flue Dust	.50 " " " New York
	Residue Vanadium Pentoxide	.85 " " " Delivered
	Flue Dust	.60 " " " New York
	Waste Material	.35 " " " Delivered
1944	Flue Dust	.45 " " " New York Plus 1/2 analysis Cost
	Vanadium Pentoxide	1.00 " " " Delivered Plus 1/2 Analysis Cost
	Flue Dust	.50 " " " Bayonne, N. J.
	" "	.45 " " " New York Plus 1/2 Analysis Cost
	" "	.50 " " " " " " " "
	Ammonium Meta Vanadate	1.90 per Lb. Delivered
	Flue Dust	.40 " " V_2O_5 New York Plus 1/2 Analysis Cost
	" "	.50 " " " Bayonne, N. J.
	Sodium Vanadate Residue	.60 " " " Less Freight

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In United States District Court

Plaintiffs' Exhibit No. 15

IN UNITED STATES DISTRICT COURT

Plaintiffs' Exhibit No. 15

STATEMENT OF PURCHASES
(EXCLUDING VANADIUM BEARING ORE, FLUE DUST, VANADIC ACID AND FERROVANADIUM

Article	Date of Purchase	Seller	Quantity	Price Paid	Any Allowances
		Electro Metallurgical Co. Niagara Falls, N.Y.			
Ammonium Metavanadate	9/25/33	Vanadium Corp. of America	300 Lbs.	$1.4500 Lb.	-
" "	10/12/33	" " " "	200 "	1.4500 "	-
Ferrovanadium	7/6/44	Vanadium Corp. of America	60000.54 Lbs.V	2.900 "V	-
Vanadium Oxide	6/10/41	Vitro Mfg. Co.	31390 Lbs.V_2O_5	1.025 "V_2O_5	-
" "	11/4/41	" " "	27351.21 " "	1.075 " "	-
" "	12/30/41	" " "	16979.44 " "	1.075 " "	-
" "	2/10/42	" " "	9846.16 " "	1.075 " "	-
" "	2/27/42	" " "	10416.47 " "	1.075 " "	-
" "	4/2/42	" " "	1365.73 " "	1.075 " "	-
" "	4/2/42	" " "	8591.88 " "	1.075 " "	-

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UNITED STATES VANADIUM CORPORATION, PLANT VP

URAVAN, COLORADO

VANADIUM-BEARING MATERIALS PURCHASED (EXCLUDING VANADIUM ORE)

January, 1936, to July, 1945

Date Paid	Vendor	Purchase Order	Date Received	Pounds V205	Value	
	J. B. Claybaugh & Ben H. Simpson	PC#7963	4/3/40	234.53*	49.25	Ore Tailings
	J. B. Claybaugh & Ben H. Simpson	PC#7963	4/40	1,079.87	917.89	Red Cake
	Mesa Mines	PC#8063	5/40	680.17	578.14	Red Cake
7/31/40	Brown & Bowman	PC#8608	7/40	9,186.50	8,267.85	Fused Oxide
8/28/40	Brown & Bowman	PC#8772 PC#8857	8/15/40	1,460.00	(250.00 (165.00	(Furnace Brick 1420# (Fused Oxide 40#
8/12/40	Gateway Alloys, Inc.	PC#8716	8/12/40	1,042.01	886.88	Red Cake
7/11/41	Nisley & Wilson	PC#3106	7/41	4,336.20	3,642.41	Red Cake
7/11/41	Nisley & Wilson	PC#3108		109.00	91.56	Red Cake
	North Continent Mines, Inc.	PC#7936 (11/3/42)	10/42	9,383.517	5,160.93	Fusion Furnace Residue & 210# Red Cake
	North Continent Mines, Inc.	PC#8951 (3/18/43)	3/43	4,250.6	2,337.83	Fusion Furnace Residue
	Nisley & Wilson (Hauling on above tailings)	PC#9152 (4/22/43)	4/1/43 to 4/14/43	*	935.99 2,461.03	Gateway Tailings. No V205 content shown. Paid for as 935.488 dry tons @ $1.00 per ton.
	H. I. Gardner (Hauling on above tailings)	PC#9556 (6/26/43)	6/43	*	365.86 730.09	Gateway Tailings. No V205 content shown. Paid for as 365.875 dry tons @ $1.00 per ton.
	Nisley & Wilson	PC#11401	3/2/44	2,164.48	1,082.24	Fusion Furnace Residue
	Anaconda Copper Mining Company	10927	5/41	36,583.20	25,608.24	Car No. NP9743 Red Cake
	Anaconda Copper Mining Company	11277	6/41	36,984.19	25,888.93	Car No. NP30424 Red Cake
	Anaconda Copper Mining Company	11986	8/41	46,100.20	33,670.14	Red Cake
	Anaconda Copper Mining Company	290	10/41	40,205.10	28,143.57	Red Cake
	Anaconda Copper Mining Company	900	1/42	50,397.60	35,278.32	Red Cake
	Total Anaconda Delivered to Uravan			212,270.29	148,589.20	
	E. H. Simms	PC#7996	5/40	1,226.25	502.76	This appears to be vanadium-bearing brick reclaimed from old Rifle Mill and paid as purchased ore.
7/15/42	Louis Ackerman	PC#6915		146.73	58.69	Loma Fusion Fur. Brick
	North Continent Mines	PC#7255	7/8/42 & 8/485/42	14,345.40	7,889.97	Fusion Furnace Residue

* Vanadium Ore Mill Tailings (No V205 Content Available)

PC - Petty Cash Check Number

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UNITED STATES VANADIUM CORPORATION, PLANT VP

URAVAN, COLORADO

VANADIUM-BEARING MATERIALS PURCHASED BY ELECTRO METALLURGICAL COMPANY

FOR UNITED STATES VANADIUM CORPORATION

Vendor	Material	Date Rec'd.	Car Number	Gross Weight (Lbs)	Pounds V2O5	Vendor's Inv. Value	Sample and Analysis	Freight	Hauling Cost at Uravan
Phillip Bros.,Inc.	Flue Dust	12/39	N&W 120710	38,455	7,676.39	$ 5,527.04	$ 28.68	$ 820.88	$ 48.14
Phillip Bros.,Inc.	Flue Dust	12/39	NYC 131785	39,677	10,113.29	7,281.53	23.34	635.81	36.42
Phillip Bros.,Inc.	Flue Dust	12/39	CMSTP&P 9498	43,814	5,059.94	3,643.19	47.83	714.55	40.21
Phillip Bros.,Inc.	Flue Dust	3/40	MILW 18201	46,528	5,944.50	4,280.40	28.70	751.44	95.41
Phillip Bros.,Inc.	Flue Dust	4/40	DL&W 45068	51,500	6,269.17	4,513.68	36.20	818.09	67.05
Phillip Bros.,Inc.	Flue Dust	5/40	NYC 96508	47,689	6,258.27	4,505.76	36.20	765.70	64.62
Phillip Bros.,Inc.	Flue Dust	5/40	NYC 98149	36,474	5,366.84	3,864.24	28.70	575.05	49.43
Phillip Bros.,Inc.	Flue Dust	7/40	SP 33318	47,986	8,214.49	5,914.43	26.80	762.29	28.04
Phillip Bros.,Inc.	Flue Dust	9/40	LV 5994	43,917	8,194.79	5,898.96	36.23	696.88	21.19
Phillip Bros.,Inc.	Flue Dust	10/40	MP 93418	43,193	5,930.36	4,269.86	35.70	693.26	-
Phillip Bros.,Inc.	Flue Dust	12/40	C&NW 59306	46,230	15,515.89	11,171.45	36.92	784.38	-
Phillip Bros.,Inc.	Flue Dust	12/40	CO&O 8230	45,063	8,080.41	5,936.40	40.59	728.50	-
Phillip Bros.,Inc.	Flue Dust	1/41	PRR 123438	41,470	7,917.81	5,700.96	34.11	661.54	-
Total Flue Dust				584,995	100,542.15	$ 72,507.90	$ 440.05	$ 9,408.37	$ 450.51
Phillip Bros.,Inc. *	Flue Dust	6/41	NKP 21178	47,224	-	-	-	757.70	-
Phillip Bros.,Inc.	Vanadium Slag	1/40	C&NW 54304	55,285	4,531.67	3,262.80	13.33	880.09	100.60
Phillip Bros.,Inc.	Vanadium Slag	5/40	CN 51902	72,419	8,233.31	5,929.42	5.50	1,148.05	172.95
Phillip Bros.,Inc.	Vanadium Slag	7/40	PM 35331	36,165	3,430.83	2,470.20	28.25	596.16	-
Phillip Bros.,Inc.	Vanadium Slag	8/40	SAL 17979	33,426	2,718.19	1,957.10	6.51	523.05	47.95
Phillip Bros.,Inc.	Vanadium Slag	9/40	PRR 573067	48,672	3,957.91	2,849.69	9.49	759.81	69.83
Phillip Bros.,Inc.	Vanadium Slag	10/40	NYC 132725	53,285	4,637.38	3,338.91	42.47	828.63	-
Phillip Bros.,Inc.	Vanadium Slag	11/40	PRR 573763	42,095	5,080.49	3,657.95	33.56	681.05 Est.	-
Total Vanadium Slag				341,347	32,591.78	$ 23,466.07	$ 139.11	$ 5,416.84	$ 391.33

* Additional car received from Phillip Bros.,Inc. to fulfill deficiency of V2O5 in Receipts listed above.

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UNITED STATES VANADIUM CORPORATION, PLANT VR

RIFLE, COLORADO

VANADIUM-BEARING MATERIALS PURCHASED (EXCLUDING VANADIUM ORE)

October 1, 1941, to November 11, 1944

Vendor	Purchase Order No.	Date Received	Pounds V205	Value
Anaconda Copper Mining Company	VR-307	3/6/42	43,495.40	30,446.78
Anaconda Copper Mining Company	VR-475	5/7/42	46,776.60	32,743.62
Anaconda Copper Mining Company	VR-673	7/6/42	50,694.60	35,486.22
Anaconda Copper Mining Company	VR-836	9/7/42	45,576.12	31,903.28
Anaconda Copper Mining Company	VR-977	11/10/42	42,196.10	29,537.27
Anaconda Copper Mining Company	VR-1135	1/9/43	52,960.00	37,072.00
Anaconda Copper Mining Company	VR-1285	3/9/43	45,735.60	32,014.92
Anaconda Copper Mining Company	VR-1463	5/7/43	44,631.96	31,242.37
Anaconda Copper Mining Company	VR-1648	7/14/43	53,685.20	37,579.64
Anaconda Copper Mining Company	VR-1908	11/4/43	55,174.77	38,622.34
Anaconda Copper Mining Company	VR-2027	1/7/44	51,237.60	35,866.32
Anaconda Copper Mining Company	VR-2161	3/10/44	46,277.00	32,393.90
Anaconda Copper Mining Company	VR-2278	5/8/44	45,357.10	31,749.97
Anaconda Copper Mining Company	VR-2436	7/10/44	52,074.20	36,451.94
Anaconda Copper Mining Company	VR-2625	9/8/44	49,490.30	34,643.21
Anaconda Copper Mining Company	VR-2809	11/11/44	50,611.50	35,428.05

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IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 16

LIST OF PURCHASERS OF [illegible]

1933 - 1944 [illegible]

	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944
Bay City Electric Steel Castings Co.		•	•									
J. B. Beaird Corporation						•						
Bell Telephone Laboratories											•	
Belmont Smelting & Refining Works			•			•	•	•	•	•	•	
Bergstrom Steel Company								•				
Bethlehem Foundry & Machine Company								•				
Bethlehem Steel Company				•	•	•	•	•	•	•	•	•
Birdsboro Steel Foundry & Machine Co.					•							
Blaw-Knox Company			•	•	•	•	•	•	•		•	•
Bowler Foundry Company								•				
Brasburn Alley Steel Corporation	•	•	•	•	•	•	•	•	•	•	•	•
Buckeye Traction Ditcher Company						•						
Burgess-Parr Company	•										•	
Burnside Steel Foundry Company			•	•		•		•	•			
Cabot Shops, Inc.										•	•	•
California Institute of Technology												•
Calumet Steel Castings Company				•								
Carbide & Carbon Chemicals Corp.	•	•		•	•		•		•			
Carpenter Steel Company	•	•	•	•	•	•	•	•	•	•	•	•
Caterpillar Tractor Company									•	•		
Central Iron & Steel Company												•
Champion Rivet Company					•	•	•	•	•	•	•	•
Chapman Valve Manufacturing Co.											•	•
Chicago Hardware Foundry Company								•	•			
Chicago Steel Foundry Company		•										
Chrysler Corporation				•					•			
Cincinnati Steel Castings Company	•				•	•	•		•			
Cladon Corporation											•	
Clark Equipment Company									•			
Coast Metals, Inc.						•	•	•	•	•		
Colonial Steel Division						•		•	•			
Columbia Steel Castings Company					•							
Columbia Tool Steel Company	•	•	•	•	•	•	•	•	•	•	•	•
Combustion Engineering Co., Inc.		•	•					•			•	•
Comstock and Wescott												•
Continental Foundry & Machine Co.	•	•	•						•			
Continental Machine, Inc.											•	
Continental Ore Company											•	

LIST OF PURCHASERS OF VANADIUM PRODUCTS
1933 - 1944 INCLUSIVE

	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944
Hugh S. Cooper								•				
Crucible Steel Casting Company	•	•	•	•	•	•	•	•	•	•		•
Crucible Steel Company of America	•	•							•	•		
Curtiss-Wright Corporation										•		
Cutler-Hammer, Inc.								•				
D & M Machine Works				•				•				•
Dedman Foundry & Machine Company						•				•		
Delco-Remy Division, General Motors Corp.		•				•	•	•	•			
Detroit Alloy Steel Co.								•				
Detroit Grey Iron Foundry Company									•			
Dibert, Bancroft & Ross Company						•	•	•	•			•
Henry Disston & Sons									•	•		
Dodge Steel Company					•							
Dow Chemical Company								•				
Wilbur B. Driver Company								•	•			
Driver-Harris Company									•		•	
Duncan Foundry & Machine Works									•			
B. F. Drakenfeld & Company					•				•			•
Edgewater Steel Company									•		•	
Elmer and Amend	•		•				•	•				
Electric Steel Casting Company			•									
Empire Ordnance Corporation										•		
Empire Steel Corporation											•	
Enterprise Engine & Foundry Co.										•		
Enterprise Foundry Corporation								•				
Erie Forge Company		•							•	•		
Fairchild Aviation, Inc.												•
Fairmount Chemical Company							•			•		
Fairmount Foundry, Inc.								•				
Fansteel Metallurgical Company									•			
Farrell Cheek Steel Company						•	•					•
Ferro Machine and Foundry Co.									•			
Firth-Sterling Steel & Carbide Co.	•	•	•	•	•	•	•	•	•	•	•	•
Florida Machine & Foundry Co.								•	•		•	
Foote Mineral Company									•		•	
Ford Motor Company	•	•	•					•	•		•	
Forging and Casting Corporation		•	•	•						•		

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LIST OF PURCHASERS OF [illegible] PRODUCTS
1933 - 1944, INCLUSIVE

	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944
General Aircraft Equipment Company												•
General Alloys Company								•				
General Electric Company	•	•			•			•	•	•	•	•
General Iron Works Company												•
General Metals Corporation			•		•			•	•			
Thos. B. Gibbs & Company								•				
Globe Steel Tubes Company										•		
Grand Rapids Foundry Company							•					
Granite City Steel Company								•				
Great Lakes Steel Corporation	•											
Granite Foundries Corporation								•				
Dr. Robert Gubat										•		
Chas. Hardy, Inc.								•				
Harnischfeger Corporation					•			•				
Hartford Electric Steel Corp.		•										
Haynes Stellite Company	•	•	•	•	•	•	•	•	•	•	•	
Hi-Alloy Castings Company											•	•
Hinderliter Tool Company											•	•
O. Hommel and Company								•	•			
Hoskins Manufacturing Company										•		
Hughes Tool Company					•					•	•	
A. H. Hyndman Company, Inc.										•		
Joshua Hendy Iron Works												•
Indiana Steel Products Company									•	•		
Ingersoll Steel & Disc Division						•	•		•	•		
Inland Steel Company						•			•			
Insulation Manufacturing Company												•
International Nickel Company			•			•			•	•		•
Isaacson Iron Works											•	•
Jamestown Malleable Iron Corp.	•											
Jessop Steel Company				•	•	•			•			•
Jones and Laughlin Steel Corp.	•	•			•			•	•		•	
Joslyn Manufacturing & Supply Co.								•	•			

LIST OF PURCHASERS OF VANADIUM PRODUCTS
1933 - 1944 INCLUSIVE

	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944
Kaiser Company												•
Kay-Brunner Steel Products Co.								•	•	•		•
H. W. Kellogg Company	•			•		•	•		•		•	
Keystone Steel & Wire Company							•					
Kilby Steel Company				•				•	•	•		
Kinnaid-Osborn Electric Steel Co.												•
Knoxville Iron Company									•			
Koppers Company			•						•			
Krumel Laboratories	•	•									•	•
Laclede Stoker Company										•		
Latrobe Electric Steel Company		•	•	•	•	•	•	•	•	•	•	•
R. Lavin & Sons					•						•	
Lebanon Steel Foundry	•	•	•	•	•	•	•	•	•	•		
Lectromelt Steel Castings Company							•		•			
Letourneau Company of Georgia										•		
Lincoln Electric Company	•			•	•	•	•	•	•	•	•	•
Lindsay Light & Chemical Company			•	•	•	•	•	•				
Link-Belt Company				•	•		•					•
R. E. Lochar & Schafrin Company								•				
Locomotive Finished Materials Co.					•							
Los Angeles Steel Castings Company									•			
Lukens Steel Company										•		•
Magee Bros.							•					
Maley Company				•					•			•
Manlimen Iron Works Company												•
P. H. Mallory Company			•									
Marion Steam Shovel Company	•			•	•	•	•	•	•			
Marquette Manufacturing Company												•
Massillon Steel Casting Company									•			•
Maynard Electric Steel Castings Co.		•		•	•							
Mesta Machine Company									•	•		
Metal & Thermit Corporation											•	•
Metal Products Manufacturing Co.										•		
Meteley Corporation									•	•		
Michigan Steel Castings Company							•		•			

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LIST OF PURCHASERS OF VARIOUS PRODUCTS
1933 - 1944 INCLUSIVE

	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944
Aldrale Company									•	•		
Miller Foundry Company		•	•									
Milwaukee Steel Foundry Company	•	•	•	•	•		•					
Monsoon Foundry & Machine Company	•											
Monroe Steel Castings Company									•			
Monsanto Chemical Company			•	•	•	•	•	•	•	•	•	•
Motor & Machinery Castings Company									•			
Mountain States Steel Foundries			•									
National Aniline & Chemical Company	•	•	•	•	•	•	•	•	•			
National Art Bronze Works						•						
National-Erie Company	•	•				•		•				
National Malleable & Steel Castings Co.			•	•	•	•	•	•	•	•		
National Products & Refining Company											•	
National Supply Company			•	•					•	•	•	
National Traffic Guard Company										•		
Nonalite Tool Steel Company											•	
Niagara Falls Smelting & Refining Co.												•
Nutmeg Crucible Steel Company						•						
Ohio Steel Foundry Company	•	•	•								•	•
Oklahoma Steel Castings Co.	•		•									
Oliver Farm Equipment Company			•									
Omaha Steel Works						•	•		•			
Osgood Company		•	•	•	•							
Otis Elevator Company						•	•					
Oxweld Acetylene Company								•				
Pacific Car & Foundry Company									•	•		
Pacific Metals Company					•							
Parkersburg Rig & Reel Company							•					
Pelton Enric Supply Company								•				
Pennsylvania Electric Steel Castings Co.		•	•			•			•			
Peoria Malleable Castings Co.							•					
Perfect Circle Company		•			•							
Pettibone Mulliken Corporation											•	•
C. E. Phillips & Company						•						

LIST OF PURCHASERS OF VANADIUM PRODUCTS

1945 - FIRST 7 MONTHS '49

	1945	1946	1947	1948	7 Months 1949
Acme Foundry Co.					•
Actarc, Inc.	•	•			
Adirondack Fdries & Stl. Inc.	•	• •	•		
Aetna Standard Engineering Co.			•	•	
Allegheny Ludlum Stl. Corp.	•	•	•	•	•
Alliance Brass & Bronze Co.			•		•
Alloy Stl. & Metals Co.			•		
Alloy Stl. Products	•				
American Brake Shoe Co.	•				
American Cast Iron Pipe Co.	•				
American Chain & Cable Co.		•	•		
American Cyanamid & Chem. Co.				•	•
American Elec. Metal Corp.		•			
American Fdry. & Cstgs.			•		
American Optical Co.				•	
American Pipe & Stl. Corp.	•				
American Radiator & Std.	•				
American Wheelabrator & Equip.					•
Ampco Metal Inc.	•		•	•	•
Apex Foundry Co.				•	
Arcos, Inc.	•				
Armour Research Foundation	•				•
Arnold Engineering Co.		•			
Artisan Metal Prod. Inc.				•	
Atlas Stl. Casting Co.			•	•	
Atlas Stl. Ltd.		•			
Auburn Fdry. Co.	•				
Austenal Labs.			•		
Axelson Mfg. Co.				•	
Babcock & Wilcox Tube Co.	•		•		
Barium Steel Corp.	•				•
Battelle Memorial Institute	•	•	•		•
Bell Telephone Labs.		•			
Belmont Smelting & Refining Wks.	•		•	•	
Beacon Tool Co.					•
James H. Beans Fdry.					•

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LIST OF PURCHASERS OF VANADIUM PRODUCTS
1933 - 1944 INCLUSIVE

	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944
Star Foundry Company						•						
Stover Foundry Company							•					
Sterling Steel Foundry Company						•		•	•			
Stover Manufacturing & Engine Co.			•					•				
Sumner Iron Works			•									
Superior Steel & Malleable Castings Co.	•	•	•									
Sylvania Electric Products Company										•		
Henry S. Tanny												•
Taylor-Wharton Iron & Steel Co.			•	•	•							•
Andrew Terry Company				•		•	•					
Texas Electric Steel Casting Company									•			
Texas Steel Company						•	•					
Thompson Products, Inc.												•
Timken Roller Bearing Company	•	•	•	•	•	•	•	•	•	•		•
Titanium Alloy Manufacturing Co.					•							
Sam Tour & Company, Inc.												•
Treadwell Engineering Company		•	•	•								
Trifuri-Krucamm & Pithal, Inc.												•
Tucson Metals & Manufacturing Co.											•	
Uss Welding, Inc.			•	•	•	•	•		•			
United Engineering & Foundry Co.				•	•			•				•
U. S. Government	•	•	•	•	•	•	•	•	•	•	•	•
U. S. Pipe & Foundry Company		•	•									
U. S. Steel Corporation	•	•	•	•	•	•	•	•	•	•	•	•
Universal-Cyclops Steel Corporation					•	•	•	•	•	•	•	•
Utility Electric Steel Foundry												•
Valley Iron Works						•						
Valley Steel Castings Company			•	•	•						•	
Vanadium-Alloys Steel Company							•	•	•	•	•	•
Vanadium Corporation of America	•	•	•	•	•	•	•	•	•			•
Vitro Manufacturing Company						•	•	•				•
Vulcan Crucible Steel Company	•	•	•	•	•	•	•	•	•	•	•	•
Vulcan Iron Works			•									

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LIST OF PURCHASERS OF VANADIUM PRODUCTS
1933 - 1944 INCLUSIVE

	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944
Walleck Foundry Company							•					
J. P. Ward Foundries, Inc.						•						
Warman Steel Casting Company		•	•	•	•			•				•
Washburn Wire Company									•			
Washington Iron Works										•		
Weatherly Steel Castings Co.									•			
Wehr Steel Company			•	•			•		•			
West Steel Castings Company	•	•	•	•	•	•	•	•	•	•	•	•
Welding Equipment & Supply Co.												•
Western Electric Company				•	•	•	•	•	•		•	•
Western Foundry Sand Company								•				
Western Steel Casting Company			•	•	•			•				
Westinghouse Electric & Mfg. Co.	•					•					•	
Westlectric Castings Company									•			•
Weston Electrical Instrument Company	•											
Wheland Company									•			
Whip-Mix Corporation									•			
Whipple & Choate Company					•	•	•	•				
Whitehead Metal Products Company		•				•						
H. A. Wilson & Company		•										
Wisconsin Alloys Company							•	•	•			
Alan Wood Steel Company			•	•					•			
Worth Steel Company									•	•		
Xenia Foundry & Machine Co.	•											
Youngstown Alloy Casting Corp.				•		•	•	•	•			
Youngstown Foundry & Machine Co.	•	•	•	•	•	•	•					

FBD/RB
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LIST OF PURCHASERS OF VANADIUM PRODUCTS
1933 - 1944 INCLUSIVE

	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944
Pittsburgh Metallurgical Company									•			
Pittsburgh Steel Company										•		
Pittsburgh Steel Foundry Corp.			•									
Plainville Casting Company							•					
Pittsburgh Coke & Iron Company											•	
R.C.A. Manufacturing Company			•					•				•
Rankin Manufacturing Company										•		
Reichhold Chemical Company											•	
Reid-Avery Company								•				
Reliable Foundry Company												
Republic Steel Corporation	•	•	•	•	•	•	•	•	•	•	•	•
Reynolds Metals Company										•		
John A. Roebling's Sons Company							•					
Ross-Meehan Foundries									•			
Joseph Ros.									•			
Rotary Electric Steel Company									•	•		
Rustless Iron & Steel Corp.					•	•						
Saginaw Malleable Iron Div.-General Motors Corp.	•											
Scovill Manufacturing Company	•											
Scullin Steel Company		•	•	•	•							
Sealed Power Corporation							•		•	•		
Service Foundry, Inc.						•		•		•		
Sharon Steel Corporation								•	•			•
Sheppard Plate & Machine Works								•	•	•	•	•
Simonds Saw and Steel Company										•		
Sivyer Steel Casting Company	•		•									
Skagit Steel & Iron Works												•
A. O. Smith Corporation			•					•	•	•	•	•
Solvay Process Company								•				
Standard Alloy Company												•
Standard Brake Shoe & Foundry Co.								•	•	•		•
Standard Foundry Company												•
Standard Oil Company of California								•				
Standard Stoker Company	•	•	•				•	•			•	•
Standard Ultramarine Company										•		

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LIST OF PURCHASERS OF VANADIUM PRODUCTS

1945 - FIRST 7 MONTHS '46

	1945	1946	1947	1948	7 Months 1946
Bendix Aviation Corp.	•				
Berkley Machine Wks. & Fdry. Co.	•				
			•		
Cabot Shops, Inc.	•				
Calif. Inst. Technology					•
Calif. Precision Cstgs.				•	•
Canadian Brake Shoe & Fdry. Co. Ltd.		•			
Canadian Car & Fdry. Co. Ltd.		•			
Carbide & Carbon Chem. Corp.				•	
Carborundum Co.	•		•		
Caroudelet Fdry. Co.					•
CarpenterStl. Co.	•	•	•	•	•
Central Iron & Stl. Co.		•	•		
Champion Rivet Co.	•		•		
Chapman Valve Mfg. Co.	•	•	•	•	•
Ceramic & Color Chemical Mfg.				•	
Charlotte Chemicals Lab.				•	
S. Cheney & Son		•	•	•	
Chicago Stl. & Wire Co.				•	
Chrysler Corp.				•	
Cincinnati Milling Machine Co.				•	
Columbia Stl. Cstgs. Co.				•	
Columbia Tool Stl. Co.	•	•	•	•	•
Continental Machines, Inc.					•
Continental Ore Co.	•	•			
Cooper Alloy Fdry. Co.	•	•	•	•	•
Centrifugal Casting Co.		•			
Crucible Stl. Co. of America				•	•
Curtiss-Wright Corp.	•				
D & M Machine Works		•			
Davison Chem. Corp.				•	•
Dayton Malleable Iron Co.	•	•			
Detroit Gray Iron Fdry. Co.		•			
Dibert, Bancroft & Ross Co.	•				
H. F. Drakenfeld & Co.				•	•
Duraloy Co.		•	•	•	
Du Pont de Nemours & Co.		•		•	•
Duriron Co.	•				

LIST OF PURCHASERS OF VANADIUM PRODUCTS

1945 - FIRST 7 MONTHS '46

	1945	1946	1947	1948	7 Months 1946
Edgewater Stl. Co.		•			
Edmas Precision Casting Corp.	•				
Einer & Amend				•	•
Ekstrand & Thuland Inc.				•	
Fairmount Chemical Co.			•	•	
Ferro Enamel Corp.		•		•	
Firth-Sterling Stl. & Carbide Co.	•	•	•	•	•
Florida Machine & Foundry Co.	•	•	•	•	•
Foote Mineral Co.	•		•	•	•
Gardner-Denver Co.					•
General Aircraft Equip. Co.	•				
General Alloys Co.	•	•			
General Electric Co.	•	•	•	•	•
General Metals Corp.	•		•	•	•
General Motors	•	•		•	
Glover Machine Works			•		
Gorham Tool Co.				•	
Goyne Steam Pump Co.				•	
C. Paul Hagenlocher		•			•
Hamburg Plow Co.					•
Hanford Foundry Co.		•	•	•	
Harnischfeger Corp.		•	•		
Harshaw Chemical Co.				•	•
Hartford Electric Stl. Corp.		•			
Hayden Chemical Corp.				•	
Haynes Stellite Co. (Allied)	•	•	•	•	•
Heppenstall Co.	•			•	
Hetherington & Berner				•	
Highland Prints Inc.					•
B. F. Hirsch, Inc.	•				
Hughes Tool Co.		•	•	•	
Hydrocarbon Res. Inc.			•		

LIST OF PURCHASERS OF VANADIUM PRODUCTS

1945 - FIRST 7 MONTHS '46

	1945	1946		
Indiana Steel Products Co.	•		•	•
Ingersoll Stl. & Disc Div.			•	•
International Nickel Co.	•			•
Isaacson Iron Wks.				
Jessop Steel Co.		•		
Jones & Laughlin Steel Corp.				
Kaiser Co.	•			
Kay-Brunner Stl. Products Co.	•		•	
W. W. Kellogg Co.		•	•	
Kennametal Inc.			•	
Kohler Co.	•			
Koppers Co.	•			
L'Air Liquide Society		•		
Lake City Malleable Co.		•		
Latrobe Elec. Stl. Co.	•	•	•	•
Lebanon Stl. Foundry	•	•	•	
Linde Air Products			•	•
Lincoln Electric Co.	•	•		
Lunkenheimer Co.		•		
Marcast Corp.				•
Marquette Mfg. Co.	•	•		
Massillon Stl. Catg. Co.				
McArthur Chemical Co.				
Mellon Inst. of Ind. Res.			•	
Metals Disintegrating Co.			•	
Metal & Thermit Corp.			•	
Michigan Stl. Catgs. Co.				•
Mid West Alloys Inc.			•	
Midvale Co.		•	•	
Millmaster Chemical Co.				•
Monsanto Chemical Co.	•	•	•	•
Motor & Machinery Catgs. Co.		•		
Mountain State Stl. Fdries.			•	

LIST OF PURCHASERS OF VANADIUM PRODUCTS

1945 - FIRST 7 MONTHS '49

	1945	1946	1947	1948	7 Months 1949
National Aniline & Chem. Co.				•	
National Bronze & Aluminum Fdry. Co.				•	•
National Carbon Co.					•
National Cash Register				•	
National Malleable & Stl. Catgs. Co.	•		•	•	•
National Supply Co.					•
Norfolk & Western Railway Co.				•	
Olympic Stl. Wks.		•	•	•	
Omaha Stl. Wks.	•				
Oregon Stl. Fdry. Co.		•			
E. F. Owens				•	
Pacific Metals Co.			•		
Pacific States Stl. Corp.	•				
Pacific Stl. Catgs. Co.				•	
Pennsylvania Elec. Stl. Catgs. Co.	•	•			
E. A. Quirin Machine Shop & Fdry.					•
Reid-Avery Co.	•				
Reilly Tar & Chem. Corp.				•	
Reliance Regulator Corp.	•				
Republic Stl. Corp.	•	•	•	•	•
Rockwell Mfg. Co.	•				
Rustless Iron & Stl. Corp.		•			
St. Lawrence Alloys Inc.	•				
Sealed Power Corp.	•		•	•	•
Sharon Stl. Corp.	•		•	•	
Sheppard Plate & Machine Wks.	•				
A. O. Smith Corp.	•			•	
Solar Aircraft Co.	•	•			
Sorel Stl. Fdries. Ltd.		•			
Standard Brake Shoe & Fdry. Co.				•	
Standard Oil Co. New Jersey			•		
Standard Oil Development Co.		•			
Standard Stoker Co.	•	•	•	•	•

LIST OF PURCHASERS OF VANADIUM PRODUCTS

1945 - FIRST 7 MONTHS '49

	1945	1946	1947	1948	7 Months 1949
Standard Ultramarine Co.	•	•			
Stauffer Chemical Co.				•	
Sterling Alloys Co.		•			
Strong Stl. Fdry. Co.		•			
Sylvania Elec. Products Co.			• •		
San Francisco Sulphur Co.				•	
David Taylor Co.			•		
Timken Roller Bearing Co.	•	•	•	•	•
Tri-State Fdries. Inc.					•
Trumbull Fdry Co.					•
Unexcelled Chem. Co., Inc.		•			
United Engineering & Fdry. Co.	•				
U. S. Aluminum Co.			•		
U. S. Finishing Co.				•	
U. S. Government	•		•		•
U. S. Pipe & Foundry Co.		•			
U. S. Steel Corp.	•	•	•	•	•
Universal-Cyclops Steel Corp.	•	•	•	•	
Utility Elec. Stl. Fdry.		•			
Vanadium-Alloys Stl. Co.	•	•	•	•	•
Vanadium Corp. of America				•	
Vitro Mfg. Co.	•			•	•
Vulcan Crucible Stl. Co.	•	•	•	•	
Vulcan Iron Wks. Ltd.		•			
Vulcan Fdry. Co.		•			
Vulcan Stl. Fdry.					•
Wall Colmonoy Corp.	•				
Dr. Eugene Wainer			•		
Warman Stl. Casg. Co.	•				
Washington Iron Wks.	•				
Webster Mfg. Co.			•		
Wehr Stl. Co.					•
Welding Equipment & Supply Co.	•	•	•	•	

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LIST OF PURCHASERS OF VANADIUM PRODUCTS
1945 -
1945 - FIRST 7 MONTHS '49

	1945	1946	1947	1948	7 Months 1949
Welland Elec. Stl. Fdry.		•			
West Stl. Cstgs. Co.			•	•	
Westvaco Chem.				•	
Western Alloyed Stl. Cstg. Co.				•	
Western Elec. Cstg. Co.			•		
Western Electric Co.	•	•		•	•
Western Industrial Supply			•		
Western Stl. Cstg. Co.	•	•			
Westlectric Cstgs. Co.			•	•	•
Whitman Co.	•				
Wield Mold		•			
E. A. Wilson & Co.	•				
Winchester Repeating Arms Co.	•				
University of Wisconsin					•
Youngstown Alloy Cstg. Corp.			•		
Tulcan Crucible Stl. Co.			•		

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IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 17

Plaintiff's Exhibit No. 17

Vanadium Corporation of America

Sales of Vanadium Ore, Flue Dust, Vanadic Acid (Vanadium Pentoxide) and Ferro Vanadium and Price Ranges.

YEAR 1933

Domestic

Customer	Material
American Cyanamid & Chem. Co.	VPent
Allegheny Steel Co.	FeV
Alloy Cast.Steel Co.	"
American Arc Welders	"
American Steel Foundries	"
Andrews Steel Co.	"
Apex Foundry Co.	"
Arneson Foundry Co.	"
Banner Iron Works	"
Batavia Foundry Co.	"
Bell Telephone Lab.	"
Bethlehem Steel Co.	"
Binney Castings Co.	"
Blaw Knox Co.	"
Bonney-Floyd Co.	"
Braeburn Alloy Steel Corp.	"
Brighton Elec.Steel Cast.Co.	"
Buffalo Fdry & Mach.Co.	"
Colonial Steel Co.	"
Crucible Steel Cast.Co.	"
Crucible Steel Co. of America	"
Detroit Alloy Steel Co.	"
Henry Disston & Sons	"
Duriron Co.	"
Electro Alloys	"
Electrocast Steel Fdry Co.	"
Electromet Co.	AmmVan
Empire Steel Cast.Co.	FeV
Erie Forge Co.	"
Falk Corp.	"
Firth Sterling Steel Co.	"
Ford Motor Co.	"
Forging and Cast.Corp.	"
Fort Pitt Steel Cast.Co.	"
General Electric Co.	"
General Chemical Co.	VPent.
Grasselli Chemical Co.	"
General Steel Cast.Co.	FeV
Glover Machine Works	"
Great Lakes Steel Corp.	"
Gulf States Steel Co.	"
Halcomb Steel Co.	"
Harshaw Chem. Co.	VPent
Harrisburg Pipe and Pipe Bend.	FeV
Hartford Electric Steel Corp.	"
Heppenstall Co.	"
Industrial Steel Cast.Co.	"
Ingersoll Steel & Disc.Co.	"
International Harvester Co.	"

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Domestic	1933
Customer	Material
International Nickel Co.	FeV
Jessop Steel Co.	VPent
Jones & Laughlin Steel Corp.	FeV
Kinite Corp.	"
Krebs Pigment & Color Corp.	VPent
Latrobe Elec.Steel Co.	FeV
Lebanon Steel Foundry	"
Lewis Foundry & Machine Co.	"
Locomotive Fin.Matl.Co.	"
Ludlum Steel Co.	"
Lukens Steel Co.	"
Marion Steam Shovel Co.	"
Maynard Elec.Steel Cast.Co.	"
Michiana Products Corp.	"
Michigan Steel Cast.Co.	"
Midvale Co.	"
Minneapolis Elec.Steel Cast.Co.	"
Monroe Steel Cast.Co.	"
Monsanto Chemical Co.	VPent
National Art Bronze Works	FeV
National Forge & Ordnance Co.	"
Ohio Steel Foundry Co.	"
William M. Orr Co.	"
Otis Steel Co.	"
Parker Pen Co.	AmsMVan
Pittsburgh Crucible Steel Co.	FeV
Pitts.Steel Fdry Corp.	"
Quaker City Fdry	"
Reading Co.	"
Reed Fdry & Mach. Co.	"
Republic Steel Corp.	"
Ross Meehan Foundries	"
Simonds Saw & Steel Co.	"
K. W. Simpson	"
Southern Mall.Iron Co.	"
Standard Brake Shoe & Fdry Co.	"
Standard Steel Car Co.	"
Stanley Steel Works Co.	"
Sterling Steel Fdry Co.	"
Symington Co.	"
Timken Roller Bearing Co.	"
Union Sprg.& Mfg. Co.	"
Union Steel Cast.Co.	"
United Eng.& Fdry Co.	"
Universal Steel Co.	"
Vanadium Alloys Steel Co.	"
Vulcan Crucible Steel Co.	"
Washburn Wire Co.	"
Wehr Steel Co.	"
Westinghouse Elec.& Mfg.Co.	"
West Mich.Steel Foundries	"
Western Elec.Co.	"
Youngstown Sheet & Tube Co.	"

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- 1933 -

CANADIAN

Customer	Material
Dominion Foundries & Steel Ltd.	FeV

1933 Domestic and Canadian Price Ranges

FeVOH	$2.60 per lb. Ctd. V
FeVCru	2.70 " "
FeVPri	2.80 " "
VPent	1.05 to 1.15 per lb. Ctd.V2O5
Amm.M.Van.	1.90 per pound

Prices the same to all customers for similar quantities, sizes on contract and spot bases. Special grinding and quality extras not indicated in above standard prices.

VANADIUM CORPORATION of AMERICA

Sales of Vanadium Ore, Flue Dust, Vanadic Acid
(Vanadium Pentoxide) & Ferro Vanadium

and Price Ranges

Domestic Year - 1934

Customer	Material
Alloy Cast Steel Co.	Fe V
American Cast Iron Pipe Co.	"
American Steel Foundries	"
Andrews Steel Co.	"
Arcade Malleable Iron Co.	"
Arneson Foundry Co.	"
Babcock & Wilcox Co.	"
Bell Telephone Lab.	"
Bethlehem Steel Co.	"
Binney Castings Co.	"
Birdsboro Steel Foundry & Mach.Co.	"
Bonney-Floyd Co.	"
Braeburn Alloy Steel Corp.	"
Brighten Electric Steel Ctg. Co.	"
Buckeye Steel Ctg Co.	"
Burnside Steel Foundry Co.	"
A. M. Byers Co.	"
Cincinnati Milling Machine Co.	"
Colonial Steel Co.	"
Crucible Steel Casting Co.	"
Crucible Steel Co. of America	"
Damascus Steel Casting Co.	"
Detroit Alloy Steel Co.	"
Henry Disston & Son	"
E. I. DuPont	AmmVan
Duriron Co.	FeV
Eastern Steel Casting Co.	"
Eastman Kodak Co.	AmmVan
Electrocast Steel Foundry Co.	FeV
Empire Steel Castings Co.	"
Erie Forge & Steel Co.	"
Falk Corp.	"
Foote Mineral Co.	AmmVan
Ford Motor Co.	FeV
Forging and Casting Corp.	"
Fort Pitt Steel Casting Co.	"
Foster Wheeler Corp.	"
General Chemical Co.	VPent
General Electric Co.	FeV
General Steel Cstgs. Corp.	"

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Domestic Year - 1934

Customer	Material
Glover Machine Works	FeV
Gorham Tool Co.	"
Gould Coupler Co.	"
Great Lakes Steel Corp.	"
Gulf States Steel Co.	"
Charles Hardy Inc.	"
Harrisburg Pipe & Pipe Bending Co.	"
Hartford Electric Steel Corp.	"
Harshaw Chemical Co.	VPent
Heppenstall Co.	FeV
Hunt Spiller Mfg. Co.	"
Industrial Steel Casting Co.	"
Ingersoll Steel & Disc Co.	"
Jessop Steel Co.	"
Jessop Steel Co.	VPent
Jones & Laughlin Steel Corp.	FeV
Kinite Corp.	"
Latrobe Elec. Steel Co.	"
Lebanon Steel Foundry	"
Lewis Foundry & Machine Co.	"
Locomotive Finished Matl. Co.	"
Ludlum Steel Co.	"
Lukens Steel Co.	"
Machined Steel Ctg Co.	"
Marion Steam Shovel Co.	"
Marshall Car Wheel & Foundry Co.	"
Massillon Steel Ctgs Co.	"
Maynard Electric Steel Ctgs.	"
Michigan Valve & Foundry Co.	"
Midvale Co.	"
Monroe Steel Ctg. Co.	"
Monsanto Chemical Co.	VPent
National Alloy Steel Co.	FeV
National Art Bronze Works Co.	"
National Forge & Ordnance Co.	"
National Mall & Steel Ctg Co.	"
Ohio Steel Foundry Co.	"
Otis Steel Co.	"
Parker Pen Co.	AmmVan
Pittsburgh Steel Foundry Corp.	FeV
Reading Co.	"
Reliance Steel Castings Co.	"
Republic Steel Corp.	"

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Domestic — Year - 1934

Customer	Material
Bacisto-Lay Co.	FeV
Bass-Mosham Foundries	"
Bethlehem Steel Castings Co.	"
Bismarck Mfg & Steel Co.	"
Southern Malleable Iron Co.	"
Standard Brake Shoe & Fdy Co.	"
Standard Steel Works Co.	"
Sterling Steel Foundry Co.	"
Symington Co.	"
Timken Roller Bearing Co.	"
Union Steel Casting Co.	"
United Engineering & Fdry Co.	"
United States Steel Corp.	"
University of Chicago	"
Universal Steel Co.	"
Vanadium-Alloys Steel Co.	"
Vanadium-Alloys Steel Co.	VPent
Vulcan Crucible Steel Co.	FeV
Vulcan Iron Works	"
Victor Chemical Works	VPent
Washburn Wire Co.	FeV
Weir Steel Co.	"
West Michigan Steel Fdry Co.	"
Western Electric Co.	"
Youngstown Alloy Castings Co.	"
Youngstown Sheet & Tube Co.	"

Canadian

Dominion Foundry & Steel Ltd.	FeV

1934 Domestic and Canadian Price Ranges

FeVCH	$2.70 per lb. std. V
FeVCru	2.80 per lb. std. V
FeVPri	2.90 per lb. std. V
VPent	1.10 to 1.20 per lb. std. V_2O_5
AmVCm	2.00 per lb.
VMetal 90%	- 4.50 to 5.00 per lb.
VMetal 95%	- .40 to .50 per gram

Prices the same to all customers for similar quantities, since — on contract and spot bases. Special grinding and quality extras not indicated in above standard prices.

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VANADIUM CORPORATION of AMERICA

Sales of Vanadium Ore, Flue Dust, Vanadic Acid (Vanadium Pentoxide) & Ferro Vanadium

and Price Ranges

Domestic Year - 1935

Customer	Material
Allegheny Steel Co.	FeV
Alloys Steel & Metals Co.	"
Aluminum Company of America	VMetal
American Cyanamid & Chem. Co.	V Pent
American Smelting & Ref. Co.	V Metal
American Steel Fdrys.	FeV
American Grade Publishing Co.	VPent
Andrews Steel Co.	FeV
Josiah Anstice & Co.	"
Arnold Print Wks.	AmmVan
Atlas Powder Co.	VPent
Baltimore Copper Smelting	"
Jno. D. Beinert	AmmVan
Bell Telephone Co.	FeV
Berg Chemical Co.	AmmVan
Berge, J.& H.	VMetal
Bethlehem Steel Co.	FeV
Bonney Floyd Co.	FeV
Braeburn Alloy Steel Co.	FeV
Braun Corp.	AmmVan
Brighton Elec. Steel Catg. Co.	FeV
Buckeye Steel Catg. Co.	"
Buffalo Apparatus Co.	AmmVan
Burnside Steel Fdry. Co.	FeV
Burrell Tech. Supply Co.	VPent
Carbic Color & Chem. Co.	AmmVan
W. A. Case & Son Mfg. Co.	VPent
Century Chem. Co.	AmmVan
Cermic Color & Chem. Co.	VPent
City Chem. Corp.	"
Clark Equipment Co.	FeV
Climax Molybdenum Co.	"
Coleman & Bell Co.	VPent
Colonial Steel Co.	FeV
Coloray Corp.	AmmVan
Corning Glass Wks.	VPent
Crucible Steel Catg. Co.	FeV
Cruciole Steel Co. of America	"
Detroit Alloy Steel Co.	"
Desston & Sons, Inc., Henry	"
Driver Harris Co.	"
E.I. DuPont de Nemours	AmmVan
Dupont Rayon Co.	"
Eastman Kodak Co.	"

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Domestic Year - 1935

Customer	Material
Electrocast Steel Fdry Co.	FeV
Empire Steel Castg. Co.	"
Erie Forge Co.	"
Falk Corp.	"
Fansteel Prod. Co.	VMetal
Fashion Screen Prtg.	AmmVan
Fisher Scientific Co.	VPent
Fiske Brick & Granule Co.	"
Foote Mineral Co.	FeV
Ford Motor Co.	"
Forgings & Castings Corp.	"
Fort Pitt Steel Castg. Co.	"
General Alloys Co.	"
General Ceramics Co.	VPent
General Chemical Co.	"
General Dyestuff Corp.	AmmVan
General Elec. Co.	FeV
General Steel Castg. Corp.	"
Glover Machine Wks.	"
Jno. Graham & Co.	AmmVan
Grasselli Chem. Co.	VPent
Great Lakes Steel Corp.	FeV
Gulf States Steel Co.	"
Harshaw Chem. Co.	VPent
Harrisburg Steel Corp.	FeV
Harrison Steel Castg. Co.	"
Hartford Elec. Steel Co.	"
Hattiesville Print & Dye Wks.	AmmVan
Heppenstall Co.	FeV
A.V. Hoffstadt	VMetal
O. Hommel Co.	VPent
Howe & French, Inc.	AmmVan
Hudson Fur Dyeing, Inc.	"
Industrial Steel Castg. Co.	FeV
Ingersoll Steel & Disc. Co.	"
Interborough Chem. Co.	Amm NVan
Jessop Steel Co.	FeV
Jessop Steel Co.	VPent
Johnson Co., Adolph	FeV
Jones & Laughlin Steel Corp.	"
Kerr Co., Frank W.	AmmVan
Kinite Corp.	FeV
Landers Frary & Clark	AmmVan
Latrobe Elec. Steel Co.	FeV
Lebanon Steel Fdry.	"
Lennig & Co., Inc., Chas.	AmmVan
Leyes, C.J.	VPent

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Domestic Year - 1935 3.

Customer	Material
Locomotive Fin. Mat. Co.	FeV
Ludlum Steel Co.	"
Lukens Steel Co.	"
Machined Steel Casting Co.	"
Mackintosh Hemphill Co.	"
Mallory & Co., P.R.	VPent
Marion Steam Shovel Co.	FeV
Massillon Steel Catgs. Co.	"
Maynard Elec. Steel Catg. Co.	"
McKay, A. D.	VMetal
Mertz Co., L. Carlton	VPent
Michigan State College	FeV
Michiana Products Corp.	"
Midvale Co.	"
Molybdenum Corp. of America	VPent
Monroe Steel Catgs. Co.	FeV
Nat. Analine & Chem. Co.	VPent
Nat. Art Bronze Co.	FeV
Nat. Dyeing & Printing Co.	AmmVan
Nat. Forge & Ordnance Co.	FeV
Nat. Roll. & Steel Castg. Co.	"
New Jersey Zinc Co.	VMetal
Ohio Steel Fdry Co.	FeV
Palb Meyers, Inc.	VPent
Parker Pen Co.	AmmVan
Penn. Coal Products Co.	VPent
Perennial Dye & Print Wks	AmmVan
Pettibone Mulliken Co.	FeV
Pitts.Plate Glass Co.	VPent
Pitts.Steel Fdry. Corp.	FeV
Pond Lily Corp.	AmmVan
Pratt & Letchworth	FeV
Queen Dyeing Co.	AmmVan
Ramapo Finishing Corp.	AmmVan
Reliable Ink & Stationery Co.	AmmVan
Reliable Paste & Ink Co.	AmmVan
Reliance Steel Catgs.Co.	FeV
Republic Steel Corp.	"
Roeblings Sons Co., John A.	"
Ross Meehan Fdries	"
St. Francis College	VPent
Sargent Co., S.H.	"
Schaar Co.	AmmVan
Schade Paper Laboratory	"
Scientific Glass Apparatus Co.	"
" " " "	VPent

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Domestic Year - 1935

Customer	Material
Shepherd Chemical Co.	AmmVan
Simonds Saw & Steel Co.	FeV
Sirtex Printing Co.	AmmVan
Smith Corp., A.O.	VPent
Solvay Process Co.	AmmVan
Southern Malleable Iron Co.	FeV
Special Chemical Corp.	VPent
Std.Steel Works Co.	FeV
Sterling Steel Catg Co.	"
Sterling Steel Fdry. Co.	"
Stifel & Son, J.L.	AmmVan
Stone, Chas. H.	"
Stoody Co.	FeV
Symington Co.	"
Timken Roller Bearing Co.	"
Tubize Chatillon Corp.	AmmVan
Una Welding, Inc.	FeV
Union Oil Co. of Calif.	AmmVan
Union Steel Catgs.Co.	FeV
United Eng. & Fdry Co.	"
U.S. Steel Corp.	"
Univ. of Pitts.	VPent
Universal Steel Co.	FeV
Vanadium Alloy Steel Co.	"
Victor Chem. Works	VPent
Vulcan Crucible Steel Co.	FeV
Waldrick Co.	AmmVan
Walker & Co., Inc., G.T.	"
Wallwork Fdry. Co.	FeV
Warner Chem. Co.	VPent
Washburn Wire Co.	FeV
Westinghouse Air Brake Co.	"
West Mich.Steel Fdry Co.	"
Westvaco Chlorine Prod. Co.	VPent
Will Corp.	AmmVan
Wollen Chem. & Supply Co.	"
Worth Steel Co.	FeV
Worthington Pump & Machy Co.	"
Dominion Furies & Steel, Ltd.	"

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Domestic Year - 1935 5.

1935 Domestic and Canadian Price Ranges

Fe. VON	$2.70	per lb. Ctd. V
Fe. V Cru.	2.80	" "
Fe. V Pri.	2.90	" "
V.Pent.	1.10	per lb.Ctd V205 to 1.35 per lb Natl
Amm.M.Van.	1.90 to 2.25	per pound
V.Metal 90%	4.50 to 5.00	" "
" 95%	.40 to .45	" gram

Prices the same to all customers for similar quantities, sizes - on contract and spot basis. Special grinding and quality extras not indicated in above standard prices.

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VANADIUM CORPORATION OF AMERICA

Sales of Vanadium Ore, Flue Dust, Vanadic Acid (Vanadium Pentoxide), Ferro Vanadium and Price Ranges

YEAR - 1936

DOMESTIC

CUSTOMER	MATERIAL
Ach, Clifford L.	Van P
Agricultural Experiment Station	Amm Van
Alan Wood Steel Co.	Fe V
Allied Steel Cstgs. Co.	Fe V
Am. Art Textile Prtg. Corp.	Amm Van
Am. Cer & Fury. Co.	Fe V
Am. Cyanamid & Chem. Co.	Amm Van
	Sod Van
	Van P
Am. Locomotive Co.	Fe V
Am. Manganese Steel Co.	Fe V
Am. Steel Furies.	Fe V
Andrews Steel Co.	Fe V
Apex Fdry. Co.	Fe V
Arnold Print Works	Amm Van
Atlas Fdry. Co.	Fe V
Atlas Steel Cstg. Co.	Fe V
Babcock & Wilcox Co.	Fe V
Bakuliuch, N. A.	Van P
Beck, Koller & Co.	Van P
Bell Telephone Lab.	Fe B
Beltramo, Inc., F. J.	Amm Van
Berg Chemical Co.	Amm Van
Bethlehem Steel Co.	Fe V
Birdsboro Steel Fdry. & Mach. Co.	Fe V
Blaw Knox Co.	Van Metal
Boericke & Runyan	Van Metal
Bonney Floyd Co.	Fe V
Braeburn Alloy Steel Co.	Fe V
Braun Corp.	Amm Van
Brighton Elec. Steel Cstg. Co.	Fe V
Burnside Steel Fdry. Co.	Fe V
Calumet Steel Cstgs. Corp.	Fe V
Carbic Color & Chem. Co.	Amm Van
Carondelet Fdry. Co.	Fe V
Central Scientific Co.	Sod Van
Central Iron Fdry. Co.	Fe V
Champion Spark Plug Co.	Van P
Chicago Steel & Wire	Fe V
Clark Equipment Co.	Fe V
Climax Molybdenum Corp.	Fe V

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CUSTOMER	MATERIAL
Colonial Steel Co.	Fe V
Consolidated Drystuff Corp.	Amm Van
Continental Roll & Steel Fdry. Co.	Fe V
Crucible Steel Casting Co. Lansdowne, Pa.	Fe V
Crucible Steel Co. of America Total - all companies	Fe V
Delco-Remy Div. of Gen. Motors	Fe V
Detroit Alloy Steel Co.	Fe V
Detroit Elec. Furnace Co.	Fe V
Detroit Gray Iron Fdry. Co.	Fe V
Detroit Steel Casting Co.	Fe V
Dibert, Bancroft & Ross Co.	Fe V
Disston & Sons, Inc., Henry	Fe V
Dodge Steel Co.	Fe V
Drakenfeld & Co., B. F.	Amm Van
DuPont de Nemours & Co., E. I.	Van Pont
	Amm Van
Eastman Kodak Co.	Amm Van
Electric Steel Castings Co.	Fe V
Electrocast Steel Fdry. Co.	Fe V
Empire Steel Castings Co.	Fe V
Erie Forge Co.	Fe V
Etna Machine Co.	Fe V
Falk Corp.	Fe V
Farrell Cheek Steel Fdry. Co.	Fe V
Fashion Screen Print. Co.	Amm Van
Faurot Prot. & Ident. System	Sod Van
Finco Dye & Print Works	Amm Van
Fisher Scientific Co.	Van P
Foote Mineral Co.	Fe V
	Van P
	Amm Van
	Van Metal
Forging & Cstg. Corp.	Fe V
Fostoria Glass Co.	Van P
Foto Shop, The	Amm Van
Frank Foundries Co.	Fe V
Fuxs, F.	Van P
General Chemical Co.	Fe V
	Van P
General Dyestuff Corp.	Amm Van
General Electric Co.	Fe V
General Plate Co.	Fe V
General Steel Casting Corp.	Fe V
Glenlyon Print Works	Amm Van
Gorham Tool Co.	Fe V
Grand Rapids Varn. Corp.	Van P
Granle & Dyer	Amm Van
Great Bros. Fdry.	Fe V
Great Lakes Steel Corp.	Fe V
Great Pacific Fur Dye. Corp.	Amm Van
Gulf States Steel Co.	Fe V

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CUSTOMER	MATERIAL
Gunite Foundries Corp.	Fe V
Hampton Co.	Amm Van
Harrisburg Steel Corp.	Fe V
Harrison Steel Castgs. Co.	Fe V
Harshew Chemical Co.	Van P
	Amm Van
Hartford Elect. Steel Corp.	Fe V
Heppenstall Co.	Fe V
Hoffstadt, F. V.	Van Metal
Hommel Co., O.	Van P
	Amm Van
Hudson Fur Dyeing, Inc.	Amm Van
Industrial Steel Castg. Co.	Fe V
Ingersoll Steel & Disc Div. - Borg Warner Corp.	Fe V
Interborough Chem. Co.	Amm Van
International Harvester Co.	Fe V
Jessop Steel Co.	Fe V
	Van P
Johns Hopkins Univ.	Van P
	Amm Van
	So Van
Johnson Co., Adolph	Fe V
Jones & Laughlin Steel Corp.	Fe V
Kahl Iron Fdry., Fred.	Fe V
Kansas City Lab. Sup. Co.	So Van
Kellogg & Co., M.W.	Van P
	Amm Van
Keokuk Steel Castgs. Co.	Fe V
Kerr Co., Frank W.	So Van
	Van Metal
Kilby Car & Fdry. Co.	Fe V
Kinite Corp.	Fe V
Laboratory Materials Co.	Amm Van
Latrobe Elec. Steel Co.	Fe V
Lebanon Steel Fdry. Co.	Fe V
Lehigh Foundries, Inc.	Fe V
Lennig & Co., Inc. Chas.	Amm Van
Lima Locomotive Works	Fe V
Locomotive Fin. Mat'l Co.	Fe V
Loewenstein & Sons, J. H.	Amm Van
Ludlum Steel Co.	Fe V
Lukens Steel Co.	Fe V
Machined Steel Castg. Co.	Fe V
Malleable Iron Fittings Co.	Fe V
Malloy & Co., F. R.	Van P
Manhattan Print Works	Amm Van
Marion Steam Shovel Co.	Fe V
Mason Color & Chem. Co.	Amm Van
Mass. Inst. of Tech.	So Van
Massillon Steel Castgs. Co.	Fe V
Maynard Elec. Steel Castg. Co.	Fe V
McKay, A. D.	Van Metal
Mifford Chemical Co.	Amm Van

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CUSTOMER	MATERIAL
Michigan Bumper Corp.	Van P
Michigan Steel Cstg. Co.	Fe V
	Van Metal
Michiana Products Corp.	Fe V
Midvale Co.	Fe V
Millard Heath Co.	Van P
Monroe Steel Cstgs. Co.	Fe V
Motor & Mach. Cstgs. Co.	Fe V
Nat'l Analine & Chem. Co.	Van P
Nat'l Forge & Ordnance Co.	Fe V
Nat'l Supply Co. of Calif.	Fe V
N. J. Lab. Sup. Co.	Van P
	Amm Van
Norfolk & Western Ry. Co.	Fe V
Ohio Steel Fdry. Co.	Fe V
Olicort, Joseph	Amm Van
Omaha Steel Works	Fe V
Osgood Co., The Charles	Amm Van
Parker Pen Co.	Amm Van
Parish & Thompson, Inc.	So Van
Pettibone Milliken Co.	Fe V
Polytechnic Inst. of Balym.	Fe V
Proximity Mfg. Co.	Amm Van
Reliable Ink & Stat. Co.	Amm Van
Reliance Steel Cstgs. Co.	Fe V
Republic Steel Corp.	Fe V
Rogers Laboratories	Van P
Ross Meehan Fdries.	Fe V
Saint Francis College	Van Metal
Sargent Co., E. H.	Van P
	Amm Van
Sawbrook Steel Castings	Fe V
Schaar & Co.	Van P
Schering & Co.	Van P
Shell Development Co.	Van P
Sherwin-Williams Co.	Van P
	Amm Van
Simonds Saw & Steel Co.	Fe V
Sivyer Steel Cstg. Co.	Fe V
Sirtex Printing Co.	Amm Van
Smith Corp., A.O.	Van P
Sorbo-Mat Process Eng.	Fe V
Special Chemicals Corp.	Van P
Standard Brake Shoe & Fdry. Co.	Fe V
Std. Elec. Steel Casting Co.	Fe V
Standard Steel & Wire Co.	Fe V
	Van P
Standard Steel Works Co.	Fe V
Sterling Chimney Co.	Amm Van
Sterling Steel Cstg. Co.	Fe V
Sterling Steel Fdry. Co.	Fe V
Stifel & Son, J. L.	Amm Van
Stoody & Co.	Fe V

CUSTOMER	MATERIAL
Superior Fdry. Co.	Fe V
Texas Chemical	Amm Van
Textor Chemical Lab.	Van P
Thomas Co., Arthur H.	Amm Van
Timken Roller Bearing Co.	Fe V
Toledo Camera Shop	Amm Van
Uncas Finishing Co.	Amm Van
Union Oil Co. of Calif.	Amm Van
Union Spring & Mfg. Co.	Fe V
United Eng. & Fdry. Co.	Fe V
United States Steel Corp. - Total	Fe V
Universal Cyclops Steel Corp.	Fe V
University of Pennsylvania	So Van
University of Pittsburgh	Van P
	Amm Van
Valley Mould & Iron Corp.	Fe V
Vanadium Alloys Steel Co.	Fe V
Van Vorst, Albert B.	Amm Van
	So Van
Verona Chemical Co.	Van P
Victor Chemical Co.	Van P
Vulcan Crucible Steel Co.	Fe V
Walker & Co., Geo. T.	V Metal
Wallwork Fdry. Co.	Fe V
Wallworth Co.	Fe V
Washburn Wire Co.	Fe V
Warwick Chin & Co.	Amm Van
West Michigan Steel Fdry. Co.	Fe V
West Steel Catg. Co.	Fe V
Western Elec. Co.	Van P
Westinghouse Elec. & Mfg. Co.	Fe V
Wilson Welder & Metals Co.	Fe V
Worth Steel Co.	Fe V
Zimmerman Steel Co.	Fe V

CANADIAN

Canadian Brake Shoe & Fdry. Co.	Fe V
Dominion Foundries & Steel, Ltd.	Fe V

1936 DOMESTIC AND CANADIAN PRICE RANGES

Fe VOH	$2.70 per lb Ctd V	Ammo Van	$1.90 to $2.20 per pound
Fe V Cru	2.80 per lb Ctd V	V Met. 90%	4.10 to 4.50 " "
Fe V Pri	2.90 per lb Ctd V	V Met. 95%	.40 to .45 per gram
V Pent	1.10 per lb Ctd V205 to 1.25 per pound Mat'l	V Pent CP	15.00 per pound
		Ammo Van CP	7.00 per pound
		Sod O Van	1.65 to 3.25 per pound

Prices the same to all customers for similar quantities, sizes - on contract and spot bases. Special Grinding and quality extras not indicated in above standard prices.

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VANADIUM CORPORATION OF AMERICA

Sales of Vanadium Ore, Flue Dust, Vanadic Acid (Vanadium Pentoxide), Ferro Vanadium and Price Ranges

YEAR - 1937

DOMESTIC

CUSTOMER	MATERIAL
A. C. Spark Plug Division - G. M. C.	Van Pent
Acme Foundry Co.	Fe Van
Adirondack Foundries & Steel, Inc.	Fe Van
Ahern Textile Print	Amm M Van
Alan Wood Steel Co.	Fe Van
Allegheny Steel Co.	Fe Van
Alloy Cast Steel Co.	Fe Van
Alloy Steel & Metals Co.	Fe Van
Althouse Chemical Co.	Van Pent
American Art Textile Printing Co.	Amm M Van
American Cyanamid and Chemical Co.	Amm M Van
	Van Pent
American Locomotive Works	Fe Van
American Steel Foundries Co.	Fe Van
Apex Foundry Co.	Fe Van
Arnold Print Works	Amm M Van
Atlantic Foundry Co.	Fe Van
Atlas Steel Casting Co.	Fe Van
Auto Specialties Mfg. Co.	Fe Van
Babcock and Wilcox Co.	Fe Van
Barrett Co.	Van Pent
Beck, Koller and Co., Inc.	Van Pent
Bell Telephone Laboratories	Fe Van
Beltrano, Inc., F. J.	Amm M Van
Bethlehem Steel Co.	Fe Van
	Van Pent
Bettendorf Co.	Fe Van
Birdsboro Steel Foundry & Mach. Co.	Fe Van
Blue Valley Foundry Co.	Fe Van
Boericke & Runyon	90% Van Metal
Bonney Floyd Co.	Fe Van
Borden & Remington Co.	Amm M Van
Boyer, W. T.	Fe Van
	90% Van Metal
Braeburn Alloy Steel Corp.	Fe Van
Braun Corp.	Amm M Van
Braun-Knecht-Heimann Co.	Van Pent C P
Brewer & Co.	Amm M Van
Burnside Steel Foundry Co.	Fe Van
Calco Chemical Co.	Sod O Van
Calumet Steel Casting Co.	Fe Van
Capital Paint & Varnish Co.	Van Pent
Carbic Color & Chemical Co.	Amm M Van
Carus Chemical Co.	Van Pent
Central Iron Foundry Co.	Fe Van

CUSTOMER	MATERIAL
Central Scientific Co.	Van Pent
	Sod O Van
Chain Belt Co.	Fe Van Cru
Chicago Malleable Castings Co.	Fe Van
Ciba Co.	Amm M Van
City Chemical Co.	Sod O Van
Clark Equipment Co.	Fe Van
Cleveland Graphite Bronze Co.	95% Van Metal
Climax Molybdenum Corp.	Fe Van Pri
Coast Metals & Reduction Co.	90% Van Metal
Cold Springs Bleachery	Amm M Van
Colonial Steel Co.	Fe Van
Calorey Corp.	Amm M Van
Columbia University	Fe Van
	Van Pent
	Van Pent C P
Continental Roll & Steel Fdry. Co.	Fe Van
Corhart Refractories Co.	Van Pent
Cranston Print Works	Amm M Van
Crobalt, Inc.	Mn V Alloy
Crucible Steel Casting Co.	Fe Van
Crucible Steel Co. of America	Fe Van
Daigger & Co., A.	Van Pent
Deezer Steel Casting Co.	Fe Van
Dennis Co., Martin	Van Pent
Detroit Alloy Steel Co.	Fe Van
Detroit Steel Casting Co.	Fe Van
Dibert, Bancroft & Ross Co.	Fe Van
Disston & Sons, Inc., Henry	Fe Van
Drakenfeld & Co., D. F.	Van Pent
	Amm M Van
duPont deNemours & Co., E. I.	Van Pent
	Amm M Van
	Amm M Van C. P.
Eastman Kodak Co.	Amm M Van
Eaton Detroit-Metal Co.	Van Pent
	Amm M Van
	Sod O Van
	90% Van Metal
Ehrhart & Karl Co.	95% Van Metal
Electric Steel Casting Co.	Fe Van
Electrocast Steel Foundry Co.	Fe Van
Empire Steel Casting Co.	Fe Van
Erie Forge Co.	Fe Van
Etna Machine Co.	Fe Van
Falk Corp.	Fe Van
Faurot Protective & Identification Sys.	Sod O Van
Ferrolegeringer	Fe Van
Foote Mineral Co.	Van Pent
	Amm M Van
Forging & Casting Corp.	Fe Van
Francis & Bygren Foundry Co.	Fe Van
Frank Foundries Corp.	Fe Van
Gangwer & Co., I. D.	Fe Van
General Chemical Co.	Van Pent

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CUSTOMER	MATERIAL
General Dyestuff Corp.	Amm M Van
General Electric Co.	Fe Van
General Motors Co.	Fe Van
General Steel Casting Corp.	Fe Van
Gesing Chemical Co.	Van Pent
Glenlyon Print Works	Amm M Van
Goodrich Co., B. F.	Van Pent
Gorham Tool Co.	Fe Van
Grant Bros. Foundry Co.	Fe Van
Great Lakes Steel Corp.	Fe Van
Greiner Co., Otto R.	Amm M Van
Hamilton Foundry & Mach. Co.	Fe Van
Hampton Co.	Amm M Van
Harrisburg Steel Corp.	FeVan
Harrison Steel Casting Co.	Fe Van
Hershaw Chemical Co.	Van Pent
Hart Bros. Machine Co.	Fe Van
Hartford Electric Steel Corp.	Fe Van
Harvard University	Fe Van
	Van Pent C P
Heinecke, Dr. Wm.	Sod O Van
Heppenstall Co.	Fe Van
Hercules Powder Co.	Van Pent
	Amm M Van
Heyden Chemical Corp.	Amm M Van
High Speed Steel Alloys, Ltd.	Fe V
Hoofstadt, E. V.	90% Van Metal
Hommel Co., O.	Van Pent
Holland Aniline Dye Co.	Sod O Van
Hudson Fur Dyeing, Inc.	Amm M Van
Huisking Co., Chas. L.	Van Pent
Humble Oil & Refining Co.	Van Pent
Hunsperger, Dr. F.	Sod O Van
Hyuro Eng. & Chemical Co.	Amm M Van
	Sod O Van
Ingersoll Steel & Disc Div.	Fe Van
Jessop Steel Co.	Fe Van
Johns Hopkins University	Amm M Van
Johnson & Co., Chas. E.	Van Pent
Jones & Laughlin Steel Corp.	Fe Van
Kahl Iron Co., Frederick	Fe Van
K. C. Laboratory Supply Co.	Sod O Van Comm.
Kerr Co., Frank W.	Amm M Van
Lacker, J. A.	90% Van Metal
Lake Erie Foundry Co.	Fe Van
Larrison, T.	Fe Van
Latrobe Electric Steel Co.	Fe Van
Lebanon Steel Foundry Co.	Fe Van
Lehigh Foundries, Inc.	Fe Van
Lennig & Co., Chas.	Amm M Van
Levey Co., Inc., Fred H.	Amm M Van
Lewis Chemical Co.	Amm M Van
Locomotive Finished Materials Co.	Fe Van
Los Angeles Chemical Co.	Van Pent
Lowenstein & Sons, J. M.	Amm M Van

CUSTOMER	MATERIAL
Ludlum Steel Co.	Fe Van
	Van Pent
Lukens Steel Co.	Fe Van
Lukenheimer Co.	Fe Van
Machined Steel Casting Co.	Fe Van
Mackay A. D.	90% Van Metal
Madison R. R.	Amm M Van
Mallory & Co.	Fe Van
	Van Pent
Mann & Co., Inc., Geo.	Amm M Van
Marion Steam Shovel Co.	Fe Van
Massillon Steel Casting Co.	Fe Van
Maynard Elec. Steel Casting Co.	Fe Van
MacArthur Chemical Co.	Amm M Van
Metal & Thermit Corp.	Fe Van
Michiana Products Corp.	Fe Van
Michigan Steel Casting Co.	Fe Van
Midvale Co.	Fe Van
Miller, C. Franklin	Van Pent
	Amm M Van
Milwaukee Steel Foundry Co.	Fe Van
Monroe Steel Castings Co.	Fe Van
Motor & Machinery Castings Co.	Fe Van
National Analine & Chemical Co.	Van Pent
National Dyeing & Printing Co.	Am M Van
National Forge & Ordnance Co.	Fe Van
National Malleable & Steel Cstg. Co.	Fe Van
National Supply Co. of Delaware	Fe Van
Nelson T. Holland	90% Van Metal
Norfolk & Western Railway Co.	Fe Van
North Bros. Mfg. Co.	Fe Van
Northern Pump Co.	Fe Van
North West Barb Wire Co.	Fe Van
Nutmeg Crucible Steel Co.	Fe Van
Ohio Steel Foundry Co.	Fe Van
Omaha Steel Works	Fe Van
Osgood Co., Chas.	Amm M Van
Parker Pen Co.	Amm M Van
Pennsylvania Elec. Steel Cstg. Co.	Fe Van
Perennial Dye & Prt. Wks.	Amm M Van
Permutit Co.	Amm M Van
	Van Pent
Pittsburgh Steel Foundry Corp.	Fe Van
Polytech Inst. of Brooklyn	Fe Van
Pond Lyly Co.	Amm M Van
Pylas Products Co.	Amm M Van
Rapid Copy Service Co.	Amm M Van
Reliable Ink & Stationery Co.	Amm M Van
Reliance Steel Castings Co	Fe Van
Republic Steel Corp.	Fe Van
Riley Stoker Corp.	Fe Van Cru
	Fe Van Pri
Robertshaw Thermostat Co.	90% Van Metal

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CUSTOMER	MATERIAL
Noonan Drug Co.	Van Pent C. P.
Ross Meehan Foundry	Fe Van
Rumford Chemical Works	Van Pent
	Sod O Van
Saginaw Malleable Iron	Fe Van
Sargent Co., E. H.	Amm M Van
	Sod O Van
Sawbrook Steel Castings	Fe Van
Schenectady Hyg. Lab.	Amm M Van
Scientific Glass App. Co.	Amm M Van
Simons Saw & Steel Co.	Van Pent
Sirtex Printing Co.	Amm M Van
Sivyer Steel Casting Co.	Fe Van
Smith Corp., A. O.	Van Pent
Smith Steel Foundry Co.	Fe Van
Smith, Walden A.	97% Van Metal
Sorbo-Mat Process Eng.	Fe Van
Sperlan Products Co.	Fe Van
Standard Brake Shoe & Fdry. Co.	Fe Van
Standard Elec. Steel Casting Co.	Fe Van
Standard Oil Development Co.	Amm M Van
Standard Steel Works Co.	Fe Van
Sterling Steel Casting Co.	Fe Van
Sterling Steel Foundry Co.	Fe Van
Superior Steel & Mall. Catgs. Co.	Fe Van
Szabo & Beer	90% Van Metal
Tanning Process Co.	Amm M Van
Terre Haute Mall. & Mfg. Co.	Fe Van
Texas Chemical Co.	Amm M Van
Textile Chemical Co.	Amm M Van
Thomas Co., Arthur H.	Sod O Van
Timken Rolling Bearing Co.	Fe Van
Toye & Co., Jos.	Fe Van
Treadwell Eng. Co.	Fe Van
Trenton Potteries Co.	Van Pent
Turner & Co., Jos.	Van Pent
	90% Van Metal
Union Steel Casting Co.	Fe Van
Unitcast Corp.	Fe Van
U. S. Metal Refining Co.	90% Van Metal
U. S. Steel Corp.	Fe Van
Universal-Cyclops Steel Corp.	Fe Van
University of Illinois	Van Pent Tech
University of Minnesota	Sod O Van
Valley Drug & Chemical Co.	Amm M Van
Valley Paint & Chemical Co.	Amm M Van
Vanadium Alloys Steel Co.	Fe Van
Van-Lo-Old Chemical Co.	Van Pent, Tech.
	Van Pent, Purified
Victor Chemical Works	Van Pent
Vitro Manufacturing Co.	Van Pent
Vulcan Crucible Steel Co.	Fe V Cru
Vulcan Iron Works	Fe Van
Waldrich Co.	Amm M Van
Walker & Co., Geo. T.	Van Pent
	Amm M Van

CUSTOMER	MATERIAL
Washburn Wire Co.	Fe Van
Weber Steel Co.	Fe Van
West Michigan Steel Casting Co.	Fe Van
West Steel Casting	Fe Van
Westinghouse Elec. & Mfg. Co.	Fe Van
Whipple & Choate Co.	Fe Van
Wirt Co.	Van Pent
Youngstown Foundry & Mach. Co.	Fe Van
Youngstown Sheet & Tube Co.	Fe Van

CANADIAN

Canadian Brake Shoe	Fe Van
Canadian Car & Foundry	Fe Van
Dominion Foundry	Fe Van

1937 DOMESTIC AND CANADIAN PRICE RANGES

Fe Van O H	-	$2.70 per lb. Ctd. V
Fe Van Cru	-	2.80 per lb. Ctd. V
Fe Van Pri	-	2.90 per lb. Ctd. V
Van Pent	-	1.10 per lb. Ctd. V_2O_5 to $1.25 per lb. material
Amm M Van	-	1.90 to 2.20 per pound
Van Metal 90%	-	4.10 to 4.50 per pound
Van Metal 95%	-	.40 to .45 per gram
Van Pent C.P.	-	15.00 per pound
Amm M Van C.P.	-	7.00 per pound
Sod O Van	-	1.65 to 3.25 per pound

Prices the same to all customers for similar quantities, sizes - on contract and spot basis. Special grinding and quality extras not indicated in above standard prices.

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VANADIUM CORPORATION OF AMERICA

Sales of Vanadium Ore, Flue Dust, Vanadic Acid
(Vanadium Pentoxide) and Ferro Vanadium

and Price Ranges

Domestic

Year - 1938

FeV - lbs. Ctd. V
V Pent - lbs. Ctd. V2O5
Others - Pounds

CUSTOMER	MATERIAL
A.C. Spark Plug Div. Gen. Motors	V Pent CP
Abrasive Dressing Tool Co.	V Metal
Acme Foundry Co.	FeV
Adirondack Foundries Steel, Inc.	FeV
Alan Wood Steel Co.	FeV
Allegheny Ludlum Steel Corp.	FeV
American Art Textile Printing Co.	AmmVan
American Brake Shoe & Fdry. Co.	FeV
American Car & Fdry. Co.	FeV
American Chain & Cable Co.	V Pent
American Cyanamid & Chemical Co.	V Pent AmmVan
American Locomotive Co.	FeV
American Smelting & Refining Co.	V Pent
American Steel Foundries	FeV
Ann Arbor Fdry. Co.	FeV
Arnold Print Works	AmmVan
Atlantic Fdry. Co.	FeV
Babcock & Wilcox Co.	FeV
Bell Telephone Laboratories	FeV
Bus Chemical Co.	AmmVan
Burner & Co. A.V.	"
Bethlehem Steel Co.	FeV
Bonney Floyd Co.	FeV
Braeburn Alloy Steel Co.	FeV
Braun Corp.	V Pent
Braun-Knuht-Hermann Co.	V Pent
Brewer & Co.	AmmVan
Burnside Steel Fdry. Co.	FeV
Calco Chemical Co.	V Pent
Calumet Steel Castings Corp.	FeV
Campbell Wyant & Cannon Fdry. Co.	FeV
Carbic Color & Chemical Co.	AmmVan
Carus Chemical Co.	V Pent
Central Iron Fdry. Co.	FeV
Central Scientific Co.	AmmVan
Ceramic Color Chem. Mfg. Co.	AmmVan
Chapman Valve Mfg. Co.	FeV
Chicago Malleable Cstgs. Co.	FeV
Cith Chemical Co.	V Pent
Clark Equipment Co.	FeV

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Domestic

Year - 1938

CUSTOMER	MATERIAL
Climax Molybdenum	FeV
Cole Co. H	V Pent CP
Cold Spring Bleaching	AmmVan
Colonial Steel Div.	FeV
Columbia University	V Pent CP
Consolidated Chemical Industrial	AmmVan
	AmmVan CP
Consolidated Dyestaff Corp.	AmmVan
Continental Roll, Steel Fdry.	FeV
Cranston Print Works	AmmVan
Crobalt Inc.	FeV
Crucible Steel Castg. Co.(Pa.)	FeV
Crucible Steel Castg. Co.(Mlw.)	FeV
Crucible Steel Co. of America	FeV
Daigger & Co. A.	V Pent CP
	VPent
Damascus Steel Cstg. Co.	FeV
Damer Steel Cstg. Co.	FeV
Dennis Co., Martin	V Pent
	AmmVan
Denver Fire Clay Co.	V Metal
Detroit Alloy Steel Co.	FeV
Detroit Steel Cstg. Co.	FeV
Disston & Sons Inc., Henry	FeV
Drahenfeld & Co. B. F.	V Pent
	AmmVan
	SodVan
E. I. DuPont de Nemours Co.	V Pent
	V Pent CP
	AmmVan CP
E. A. Laboratories	V Pent
Eberbach & Son Co.	V Pent
Electric Steel Cstgs. Co.	FeV
Elmira Foundry Co.	FeV
Erie Forge Co.	FeV
Etna Machine Co.	FeV
Falk Corporation	FeV
Ferro Mach. & Fdry. Co.	FeV
Forging & Catg. Corp.	FeV
Fort Pitt Steel Cstgs. Co.	FeV
Frances & Mygren Fdry. Co.	FeV
General Chemical Co.	AmmVan CP
	AmmVan
General Dyestaff Corp.	AmmVan
General Electric Co.	FeV
General Motors Research	FeV
General Steel Cstgs. Co.	FeV
Gesing Chemical Co.	V Pent
Glenlyan Print Works	AmmVan

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Domestic — Year - 1938

CUSTOMER	MATERIAL
Glover Steel Co.	FeV
Gorham Tool Co.	FeV
Grand Rapids Fdry.	FeV
Grant Bros. Fdry. Co.	FeV
Great Lakes Steel Corp.	FeV
Hackett Brass Fdry.	V Pent
Hampden Color & Chem. Co.	AmmVan
Hampton Co.	AmmVan
Hanchett Mfg. Co.	FeV
Hansell Elcock Co.	FeV
Hardy Inc. Chas.	V Metal
Harshaw Chemical Co.	V Metal
Hartford Elec. Steel Corp.	FeV
Heppenstall Co.	FeV
Hercules Powder Co.	AmmVan
Hobart Mfg. Co.	FeV
Hoopstadt E. V.	V Metal
Howmet Co. O.	V Pent
Hughes Tool Co.	FeV
Hydro Eng. & Chem. Co.	V Pent CP
Industrial Castings Co.	FeV
Ingersoll Steel & Disc	FeV
International Harvester Co.	FeV
International Nickel Co.	V Metal
Jessop Steel Co.	FeV
Jones & Laughlin Steel Corp.	FeV
Kincaid-Osburn Elec. Steel Co.	FeV
Kahl Iron Co.	FeV
Kansas City Lab. Supply	Sod Van
Kentington Steel Co.	FeV
Keopuk Steel Ctg. Co.	FeV
Kilby Car & Fdry. Co.	FeV
Latrobe Elec. Steel Co.	FeV
Lebanon Steel Fdry. Co.	FeV
Lehigh Foundries	FeV
Lennig & Co., Chas.	AmmVan
Levey & Co. Fred'k.	V Pent
	AmmVan
Lindsay Light & Chem. Co.	V Pent
Locomotive Fin. Mat'l Co.	FeV
Lowenstein & Sons, T.H	AmmVan
Lukens Steel Co.	FeV
Machined Steel Ctgs. Co.	FeV
A. D. Mackay	V Metal
Mackintosh-Hemphill	FeV
Mallory & Co., P. R.	VPent
Marion Steam Shovel Co.	FeV

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Domestic — Year - 1938

CUSTOMER	MATERIAL
Mass. Inst. of Tech.	V Pent CP
Maynard Elec. Steel Catgs. Co.	FeV
McArthur Chemical Co.	AmmVan
Michiana Products Corp.	FeV
Michigan Steel Castings	FeV
Midvale Co.	FeV
Miller C. Frank	V. Pent
Milwaukee Steel Fdry. Co.	FeV
Molybdenum Corp. of America	V Pent
Monroe Steel Castings Co.	FeV
Manning & Manning, Inc.	AmmVan
Muskegon Piston Ring Co.	FeV
National Analine & Chem. Co.	V Pent
National Dyeing & Printing Co.	AmmVan
National Forge & Ordnance Co.	FeV
National Mall & Steel Castings	FeV
National Supply Co. of Del.	FeV
New Jersey Zinc Co.	V Metal
Nobilium Products	V Metal
Ohio Steel Fdry. Co.	FeV
Pacific Mills	AmmVan
Pamplus Co.	SodVan
Parke Davis & Co.	V Pent
Parker Pen Co.	AmmVan
Pa. Elec. Steel Catg. Co.	FeV
Perkins Machine & Gear Co.	V Metal
Permutit Co.	AmmVan
Phillips & Co. C. E.	VPent
Phillips Dental Lab.	FeV
Pittsburgh Fdry. & Machine	FeV
Pittsburgh Plate Glass Co.	V Pent
Pollack, Alex W	V Metal
Pond Lily Co.	AmmVan
Porcelain Enamel & Mfg.	V Pent
Prescott & Co.	AmmVan
Purdue University	V Pent
Redwig Potteries, Inc.	V Pent
Reilly Tar & Chemical Co.	V Pent
Reliance Steel Castings Co.	FeV
Republic Steel Corp.	FeV
Research Products Co.	V Pent
	V Pent CP
Riley Stoker Corp.	FeV
Robinson-Ransbottom Pottery	V Pent
Roemer Drug Co.	AmmVan
	AmmVan
Ross Meehan Foundries	FeV
Rotary Electric Steel Co.	FeV

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Domestic — Year - 1938

CUSTOMER	MATERIAL
Rouse & Shearer Inc.	V Pent
Rustless Iron & Steel Corp.	FeV
Saginaw Mall. Iron Div. G.M.C.	FeV
Sandell H. K.	V Pent
Sargent Co. E. H.	V Pent
Sawbrook Steel Castings Co.	FeV
Seldner & Anequist, Inc.	V Pent
Simonds Saw & Steel Co.	FeV
Sixtex Printing Co.	ArmMVan
Smith Corp. A. O.	V Pent
Smith Steel Foundry Co.	FeV
Solvay Process Co.	ArmMVan
Standard Elec. Steel Ctg.	FeV
Standard Oil Development	ArmMVan
Standard Steel Works Co.	FeV
Stauffer Chemical Co.	V Pent
Sterling Steel Castings Co.	FeV
Sterling Steel Fdry. Co.	FeV
Stefel & Sons J. L.	ArmMVan
L. E. Stone	V Metal
Stoody Co.	V Metal
Sulmet Alloys Co.	V Pent
Swedish Crucible Co.	FeV
Taylor Wharton Iron & Steel	FeV
Textile Chemical Co.	ArmMVan
Timken Roller Bearing Co.	FeV
Titanium Alloy Mfg. Co.	FeV
Tolick Jr.	V Metal
Toye Co. Joseph	FeV
Treadvill Eng. Co.	FeV
Turco Products Inc.	V Pent
Turner Co. - Joseph	V Metal V Pent
Union Spring & Mfg. Co.	FeV
Union Steel Castings Co.	FeV
Unitcast Corp.	FeV
U. S. Steel Corp.	FeV
Universal-Cyclops Steel Co.	FeV
University of Florida	ArmMVan
University of Illinois	V Pent FeV
Valles Paint & Chemical	ArmMVan
Valley Steel Casting Co.	FeV
Vanadium Alloys Steel Co.	FeV
Var-Lar Ord. Chemical Co.	V Pent
Velsical Corp.	ArmMVan
Victor Chemical Co.	V Pent
Vitro Mfg. Co.	V Pent

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Domestic — Year - 1938

CUSTOMER	MATERIAL
Vulcan Alloy Corp.	V Metal
Vulcan Crucible Steel Co.	FeV
Vulcan Iron Works	FeV
Waldrich Co.	AmmVan
Walker & Co., Geo. T.	SodVan
Walters Brass Fdry.	V Pent
Washburn Wire Co.	FeV
Wehr Steel Co.	FeV
Welsh Mfg. Co.	SodVan
West Michigan Steel Fdry.	FeV
West Steel Casting	FeV
Westinghouse Elec. & Mfg. Co.	FeV
Wheeling Tile Co.	AmmVan
Whipple & Choate Co.	FeV
Wilson Welder Metals	FeV
Worthington Pump Mach. Co.	FeV
Yale & Towne Mfg. Co.	FeV
Youngstown Fdry. & Machine	FeV
Youngstown Sheet & Tube Co.	FeV
CANADIAN	
Canadian Brake Shoe & Fdry. Co.	FeV
Dominion Foundries & Steel Ltd.	FeV

1938 Domestic and Canadian Price Ranges

FeV CH - $2.70 to $2.80 per lb. ctd. V
FeV Cru - $2.80 to $2.90 per lb. ctd. V
FeV Pri - $2.90 to $3.00 " " " "
V Pent - $1.10 per lb. ctd. V205 to $1.25 per lb. cont'l
AmmVan - $1.90 to $2.10 per lb. (effective 9/1/38 - $1.90 to $2.30 per lb.)
V Metal 90% - $4.10 to $4.50 per lb. ctd. V (effective 9/15/38 - $3.30 to $3.50 per lb. ctd. V.)
V Metal 95% - $0.40 to $0.45 per gram
SodVan - $1.65 to $2.25 per lb. (effective 10/15/38 - $2.90 to $2.20 per lb.)
V Pent CP - $7.00 per lb.
AmmVan CP - $7.00 per lb.

Prices the same to all customers for similar quantities, sizes, on contract and spot bases. Special grinding and quality extras are not indicated in above standard prices.

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VANADIUM CORPORATION OF AMERICA

Sales of Vanadium Ore, Flue Dust, Vanadic Acid
(Vanadium Pentoxide) & Ferro Vanadium

and Price Ranges

Domestic Year - 1939

CUSTOMER	MATERIAL
Acme Foundry Co.	Fe V
Adirondack Foundries & Steel	"
Advance Foundries Co.	"
Ahern Textile Print	AmmVan
Alan Wood Steel Co	Fe V
Allegheny Ludlum Steel Corp.	"
" " "	V Pent
Alloy Steel & Metal Company Inc.	Fe V
American Art Textile Prtg. Co.	AmmVan
American Brake Shoe & Fdry Co.	Fe V
American Car & Foundry Co.	"
American Cast Iron Pipe Co.	"
American Cyanamid & Chem. Co.	V Pent
American Fdry. Equipment Co.	Fe V
American Locomotive Co.	"
American Steel Castings	"
American Steel Foundries	"
Apex Foundry Company	"
Arcieri Co. Eugenio	V Pent
" " "	V Metal
Arcrods Corp.	Fe V
Arnold Print Works	AmmVan
Auto Specialty Mfg. Co.	Fe V
Babcock & Wilcox Co.	"
Barrett Co.	V Pent
Bell Telephone Lab.	Fe V
Belle City Malleable Iron Co.	"
Belmont Smelting & Refining Co.	V Metal
Berg Chemical Company	AmmVan
Bethlehem Steel Company	FeV
Bond Mfg. Corp. Inc.	Sod O Van
Bonney - Floyd Co.	Fe V
Braeburn Alloy Steel Co.	"
Brassert & Co., H. A.	V Metal
Brewer & Co. Inc.	AmmVan
Burnside Steel Foundry Co.	Fe V
Burrell Technical Supply Co.	V Pent
Calco Chemical Co. Inc.	"
Calumet Steel Castings Corp.	Fe V
Carbic Color & Chemical Co.	AmmVan
Carborundum Co.	V Pent
Carus Chemical Co.	"
Central Iron Foundry Co.	Fe V
Century Electric Company	"
Chapman Valve Mfg. Co.	"
City Chemical Co.	"
" " "	V Pent

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Domestic — Year - 1939

CUSTOMER	MATERIAL
City Chemical Co.	V Metal
" " "	SodOVan
Clark Equipment Co.	Fe V
Cold Spring Bleachery	AmmVan
Cole Co., R.	V Pent
Colonial Steel Div.	Fe V
Columbia University	V Pent CP
Continental Roll & Steel Fdry	Fe V
Corning Glass Works	V Pent
Crane Co.	Fe V
Crobalt Inc.	V Metal
Crucible Steel Casting Co.	Fe V
Crucible Steel Co. of America	"
Detroit Alloy Steel Co.	"
Detroit Steel Casting Co.	"
Disston & Sons, Inc. Henry	"
Doe & Ingalls Inc.	AmmVan CP
Drakenfield & Co. Inc. B. F.	V Pent
" "	AmmVan
DuPont de Nemours & Co. Inc.	V Pent
Duraloy Company	Fe V
E. A. Laboratories Inc.	V Pent
Eastman Kodak Co.	"
" " "	AmmVan
Edgewater Steel Co.	Fe V
Eizer & Amend	SodOVan
Electric Steel Casting Co.	Fe V
Enequist Chemical Co. Inc.	AmmVan
Erie Forge Co.	Fe V
Etna Machine Co.	"
Fairmount Chemical Co. Inc.	V Metal
Falk Corp.	Fe V
Faurot Protective & Indem.	SodOVan
Ferro Enamel Corp.	V Pent
Foote Mineral Co.	Fe V
" "	V Pent
Ford Motor Co.	"
" " "	AmmVan
Forging & Casting	Fe V
Fort Pitt Steel Casting Co.	"
General Chemical Co.	V Pent
General Drystaff Corp.	AmmVan
General Electric Co.	Fe V
General Steel Casting Corp.	"
Glover Machine Co.	"
Gorham Tool Co.	"
Gould Coupler Corp.	"
Great Lakes Steel Corp.	"
Greiner Co., Emil	AmmVan
Hampton Co.	"
Hansell Elcock Co.	Fe V
Hardy, Inc., Charles	V Metal
Harrison Steel Castings	Fe V
Harshaw Chemical Co.	V Pent

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Domestic — Year - 1939

CUSTOMER	MATERIAL
Hartford Electric Steel Corp.	FeV
Heppenstall Co.	FeV
Hercules Powder Co.	AmmVan
Herstein Laboratories Inc.	V Pent
Hobart Mfg. Co.	FeV
Hommel Co., O.	V Pent
Hudson Pur Drying Inc.	AmmVan
Hughes Tool Co.	FeV
Hydro Engineering & Chem. Co.	AmmVan
Standard Oil Co. of Louisiana	V Pent CP
Imperial Type Metal Co.	V Metal
Ingersoll Steel & Disc. Div.	FeV
Inland Steel Co.	"
Int'l Harvester Co. Inc.	"
Jackson & Church Co.	"
Jessop Steel Co.	"
Jones & Laughlin Steel Corp.	"
Kahl Iron Co., Fred'k	"
Kensington Steel Co.	"
Keokuk Steel Castings Co.	"
Knoxville Iron Co.	"
Latrobe Electric Steel Co.	"
Lebanon Steel Foundry	"
Lectromelt Steel Casting Co.	"
Lennig & Co. Inc. Charles	AmmVan
Lewis Chemical Co.	V Pent
Lewiston Fdry. & Machine Co.	FeV
Lindsay Light & Chemical Co.	V Pent
Locomotive Finished Material Co.	FeV
Los Angeles Chemical Co.	AmmVan
Lowenstein & Sons Inc., J. H.	"
Lukens Steel Co.	FeV
Machine Steel Casting Co.	"
Mackintosh Hemphill	"
Mallory & Co. Inc. P. R.	V Pent
Marion Steam Shovel Co.	FeV
Mason Color & Chemical Wks.	V Pent
Massachusetts Inst. of Tech.	AmmVan CP
Massillon Steel Casting Co.	FeV
Maynard Electric Steel Casting	"
McArthur Chemical Co. Ltd.	AmmVan
McGean Chemical Co.	V Pent
Mesta Machine Co.	FeV
Metals Disintegrating Co.	V. Metal
Michigan Steel Casting Co.	FeV
Midvale Co.	"
Mills, C. Franklin	AmmVan
Milwaukee Steel Fdry Co.	FeV
Monroe Steel Castings	"
Morton Pottery Co.	V Pent
" "	AmmVan
Motor & Machinery Castings	FeV
Munning & Munning Inc.	AmmVan
Muskegon Piston Ring Co.	FeV
National Alloy Steel	"

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Domestic Year - 1939

CUSTOMER	MATERIAL
National Aniline Chemical Co.	V Pent
" " "	AmmVan
National Forge & Ordnance	FeV
National Malleable Steel	"
New Jersey Laboratory Supply	V Pent
Nobilium Prod. Inc.	V Metal
Ohio Steel Foundry Co.	FeV
Oklahoma Steel Castings	FeV
Paden City Pottery Co.	AmmVan
Parker Pen Co.	"
Penn. Elec. Steel Casting Co.	FeV
Penn State College	V Pent
Permutit Co.	AmmVan
Pfeyer & Co. Chas.	V Pent
Phillips Dental Laboratory	FeV
Phillips Petroleum Co.	AmmVan
Pithan, Inc. Lucius	VMetal
Pittsburg Balls Div.	FeV
Pratt & Letchworth Co.	"
Proximity Mfg. Co.	AmmVan
Rare Metals Products	V Pent
"	AmmVan
"	SodOVan
Reichhold Chem. Inc.	V Pent
Reliable Ink & Stationery Co.	AmmVan
Reliance Regular Corp.	FeV
Reliance Steel Cast. Co.	"
Republic Steel Corp.	"
Robinson-Ransbottom	AmmVan
Ross-Mishan Foundries	FeV
Rotary Electric Steel Co.	"
Rouse & Shearer, Inc.	V Pent
Saginaw Malleable Iron Div.	FeV
Salisbury Laboratories	AmmVan
" "	V Pent
Sargent Co. E. H.	AmmVan
Sawbrook Steel Casting	FeV
Scientific Glass Apparatus	AmmVan
Scurlock, L. H.	FeV
Simonds Saw & Steel Co.	FeV
Sirtex Printing Co.	AmmVan
Sloss-Sheffield Steel & Iron Co.	FeV
Smith Corp. A. O.	V Pent
Smith Steel Fdry. Co.	FeV
Standard Elec. Steel Cast. Co.	"
Standard Oil Co. of Calif.	AmmVan
Standard Steel Works Co.	FeV
Standard Ultramarine Co.	V Pent
Stifel & Sons, Inc. J. L.	AmmVan
Stuart Foundry Co.	FeV
Stellmet Alloys Co. Inc.	V Pent
Superior Steel & Malleable Cast. Co.	FeV
Symington-Gould Corp.	FeV
Terre Haute Mall. & Mfg. Corp.	"
Timken Roller Bearing Co.	"
Titanium Alloy Mfg. Co.	V Pent
Toledo Porcelain Enamel Prod.	V Pent

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Domestic — Year - 1939

CUSTOMER	MATERIAL
Treadwell Engineering Co.	FeV
Union Spring & Mfg. Co.	"
Union Steel Casting	"
Unitcast Corp.	FeV
U. S. Fingerprint Prod. Inc.	SodVan
U. S. Foundries, Inc.	FeV
U. S. Steel Corp.	"
Universal-Cyclops Steel Corp.	"
" " "	V Pent
University of Florida	AmmVan
University of Illinois	V Pent
Valley Paint & Chem. Co.	AmmVan
Valley Steel Cast. Co.	FeV
Vanadium Alloys Steel Co.	"
Van. Allen Co. L. R.	V Pent
Var-Lac-Oil Chem. Co.	"
Verona Chemical Co.	"
Vitro Mfg. Co.	"
Vulcan Crucible Steel Co.	FeV
Vulcan Iron Works	"
Waldrich Co.	AmmVan
Washburn Wire Co.	FeV
Watt Pottery Co.	V Pent
Wehr Steel Co.	FeV
Weldrods Corp.	"
West Mich. Steel Fdry.	"
West Steel Cast. Co.	"
Westinghouse Elec. & Mfg. Co.	"
Will Corp.	AmmVan
Williams College	"
Wilson Welder & Metals Co.	FeV
Wollen Chem. & Supply Co.	AmmVan
Worthington Pump & Mach.	FeV
Worth Steel	"
Youngstown Fdry. & Mach. Co.	"
Youngstown Sheet & Tube Co.	"
CANADIAN	
Canadian Brake Shoe & Fdry. Co.	FeV
" Industries, Ltd.	V Metal
Consolidated Mining & Iron Co.	V Pent
Dominion Foundries & Steel Ltd.	FeV

1939 Domestic and Canadian Price Ranges

FeV CH $2.70 to 2.80 per Lb. Ctd.V
FeV Cru. $2.80 to 2.90 per Lb. Ctd. V
FeV Prim.$2.90 to 3.00 " " "
V Pent $1.10 per Lb. Ctd.V205 to 1.25 per Lb. Material
AmmVan $1.90 to 2.20 per Lb.
V Metal 90% $3.30 to 3.50 per Lb. Ctd. V
V Metal 95% $.40 to .45 per gram
V Pent C.P. $7.00 per Lb.
AmmVan CP $7.00 per Lb.
SodOVan $.90 to 2.20 per Lb.

Prices the same to all customers for similar quantities, sizes, on contract and spot basis. Special grinding and quality extras not indicated in above standard prices.

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VANADIUM CORPORATION OF AMERICA

Sales of Vanadium Ore, Flue Dust, Vanadic Acid (Vanadium Pentoxide), Ferro Vanadium and Price Ranges

Year - 1940

DOMESTIC

CUSTOMER	MATERIAL
Acme Steel & Wall Iron Works	FeV
Adirondack Foundries & Steel	FeV
Ahern Textile Print	Amm MVan
Ajax Electrothermic Corp.	FeV
Alan Wood Steel Co.	FeV
Allegheny Ludlum Steel Corp.	FeV
" " " "	V Pent.
Alloy Steel & Metals Co.	FeV
Allyne-Ryan Foundry Co.	FeV
Altens Foundry & Machine Works	FeV
American Car & Foundry Co.	FeV
American Chain & Cable Co.	FeV
American Cyanamid & Chemical Co.	V Pent.
American Locomotive Co.	FeV
American Smelting & Refining Co.	V Pent.
" " " "	V Metal
American Steel Casting Co.	FeV
American Steel Foundries	FeV
Ansbacher-Siegle Corp.	Sod O Van
Babcock & Wilcox Co.	FeV
H. W. Baleley	V Ore
Bauxite Smelting Co.	FeV
Bell Telephone Lab.	FeV
" " "	V Pent.
" " "	V Pent. CP
Belmont Smelting & Refining Co.	FeV
" " " "	V Metal
Bethlehem Steel Co.	FeV
" " "	V. Pent.
Blockson Chemical Co.	V Pent.
Bonney-Floyd Co.	FeV
Braeburn Alloy Steel Corp.	FeV
Braun Corp.	Amm MVan CP
Brewer & Co.	Amm MVan
Buffalo Co-op Stove Co.	FeV
Burnside Steel Foundry Co.	FeV
Calco Chemical Div.	V Pent
Calorizing Co.	FeV
Calumet Steel Castings Co.	FeV
Campbell Wyant & Cannon Fdy. Co.	FeV
Carbic Color & Chemical Co.	Amm MVan
Carborundum Co.	V Pent

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CUSTOMER	MATERIAL
Carus Chemical Co.	V Pent.
Catalytic Div. Co.	Sod O Van
Central Iron Fdry. Co.	FeV
Champion Spark Plug Co.	V Metal
Chapman Valve Mfg. Co.	FeV
Chicago Malleable Castings Co.	FeV
City Chemical Co.	V Pent.
Clark Equipment Co.	FeV
Climax Molybdenum Corp.	FeV
Sigmund Cohen	V Metal
Cold Spring Bleachery	Amm NVan
H. Cole Co.	V Pent. CP
Colonial Steel Div.	FeV
Columbia University	V Pent. CP
Consolidated Chemical Industries	V Pent.
Continental Roll & Steel Foundries	FeV
Cook Ceramic Mfg. Co.	V Pent.
Copperweld Steel Co.	FeV
Corning Glass Works	V Pent
M. G. Corson	V Metal
Crane Co.	FeV
Crobalt, Inc.	V Metal
Crucible Steel Cstg. Co.	FeV
Crucible Steel Co. of America	FeV
Dake Engine Co.	FeV
Morton Dennis Co.	Sod O Van
Detroit Alloy Steel Co.	FeV
Detroit Gray Iron Fdry. Co.	FeV
Detroit Steel Cstg. Co.	FeV
Henry Disston & Sons, Inc.	FeV
B. F. Drakenfeld & Co.	V Pent.
E. I. DuPont de Nemours	V Pent.
" " " "	Amm NVan CP
Duraloy Co.	FeV
Durey Plastics & Chemical Corp.	V Pent.
E. A. Laboratories Mi.	V Pent.
Eastman Kodak	V Pent.
Edgewater Steel Co.	FeV
Electric Steel Cast.	FeV
Empire Steel Cast.	FeV
Ensign Fdy.	FeV
Erie Forge	FeV
Etna Machine	FeV
Fairmont Chem.	V Metal
Falk Corp.	FeV
Faurot Protective System	Sod O Van
Ferro Enamel Corp.	Amm Va
Foote Mineral Co.	V Pent.
Forged Carbides Inc.	V Metal
Forging & Castings Co.	FeV
Fort Pitt Steel Castings	FeV
Fritzschi Brothers	V Pent.

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CUSTOMER	MATERIAL
General Aniline Works	V Pent
General Chemical Co.	FeV
	V Pent
	Amm M Van
General Dyestuff Corp.	Amm M Van
General Electric Co.	FeV
	V Pent
General Steel Casting Corp.	FeV
Gesing Chemical Company	V Pent
Givandon-Delawanna, Inc.	Amm M Van
	V Pent
Glover Machine Works	FeV
Gorham Tool Company	FeV
Grand Rapids Foundry	FeV
Great Lakes Steel Corp.	FeV
Gulf Research & Dev. Co.	V Pent
	90% V Metal
Hampton Co.	Amm M Van
Hanovia Chemical & Mfg. Co.	90% V Metal
Charles Hardy, Inc.	Amm M Van
Harrison Steel Castings Co.	Fe Van
Harshaw Chemical Co.	V Pent
Hartford Electric Steel Corp.	Fe Van
Harvard University	V Pent CP
Heil Corp.	Amm M Van CP
Heppenstall Co.	FeV
Hobart Manufacturing Co.	FeV
Home Insurance Co.	V Pent
Hudson Fur Dyeing, Inc.	Amm M Van
Hytensil Aluminum Co.	90% Van Metal
Ingersoll Steel & Disc Div.	Fe V O N
	Fe V Cru
Inland Steel Co.	Fe Van
International Harvester Co., Inc.	Fe Van
Jackson & Church Co.	Fe Van
Jessop Steel Co.	Fe Van
Jones & Laughlin Steel Corp.	Fe Van
Joslyn Mfg. & Supply Co.	Fe Van
Fred Kahl Iron Co.	Fe Van
Kensington Steel Co.	Fe Van
Keokuk Steel Castings Co.	Fe Van
Keystone Steel & Wire Co.	Fe Van
Kilby Steel Co.	Fe Van
The W. O. Larson Fdy. Co.	Fe Van
Latrobe Electric Steel Co.	Fe Van
Lebanon Steel Foundry	Fe Van
Lindsay Light & Chemical Co.	Van Pent
Locomotive Finished Material Co.	Fe Van
Lukens Steel Company	Fe Van
A. D. Mackay	90% Van Metal
	95% Van Metal
Machined Steel Casting Co.	Fe Van
P. R. Mallory & Co., Inc.	Van Pent
Marion Steam Shovel Co.	Fe Van
Mason Color & Chemical Works	Amm M Van

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CUSTOMER	MATERIAL
Mass. Inst. of Technology	Van Pent
Maynard Elec. Steel Casting Co.	Fe Van
McKernay Chemical Corp.	Amm M Van
Mesta Machine Co.	Fe Van
Metal Hydrides, Inc.	Amm M Van CP
Metal & Thermit Corp.	Fe Van
Metallo-Chemical Corp.	Van Pent
Michigan Steel Casting Co.	Fe Van
Midvale Co.	Fe Van O M
	Fe Van Cru
Milwaukee Steel Fdry. Co.	Fe Van
Monroe Steel Castings Co.	Fe Van
Monsanto Chemical Co.	Amm M Van CP
Munning & Munning, Inc.	Amm M Van
Muskegon Piston Ring Co.	Fe Van
National Aniline & Chemical Co.	Van Pent
	Amm M Van
National Forge & Ordnance Co.	Fe V O M
	Fe Van Pri
Norwich Chemical Co.	Van Pent
Ohio Steel Foundry Co.	Fe Van
Paden City Pottery Co.	Van Pent
	Amm M Van
Parker Pen Co.	Amm M Van
	Sod O Van
Penn Electric Steel Casting Co.	Fe Van
Permutit Co.	Amm M Van
Peru Foundry Co.	Fe Van
Phillips Dental Laborato—	Fe Van
Pittsburgh Plate Glass Co.	Van Pent
Pittsburgh Rolls Division	Fe Van
Pohlman Foundry Co.	Fe Van
Pratt & Letchworth Co.	Fe Van
Proximity Manufacturing Co.	Amm M Van
Purdue University	Amm M Van
Red Wing Potterian, Inc.	Van Pent
Reichhold Chemicals, Inc.	Van Pent
Reilly Tar & Chemical Corp.	Van Pent
Reliable Ink & Stationery Co.	Amm M Van
Reliance Steel Castings Co.	Fe Van
Republic Steel Corp.	Fe Van
Ross Meehan Foundries	Fe Van
Rotary Electric Steel Co.	Fe Van
Rouse & Shearer, Inc.	Van Pent
Saginaw Malleable Iron Div.	Fe Van
E. H. Sargent Co.	Van Pent
	Amm M Van
Service Foundry Co.	Van Pent CP
The Sharples Solvents Corp.	Fe V
Simonds Saw & Steel Co.	Amm M Van
Sinclair-Valentine Co.	Fe Van Cru
Sirtex Printing Co.	Sod O Van
Sivyer Steel Casting Co.	Amm M Van
Walden A. Smith	Fe Van
	Van Pent

CUSTOMER	MATERIAL
Smith Steel Foundry Co.	Fe Van
Solvay Process Co.	Amm M Van
Southern Bleachery & Print Works	Amm M Van
Standard Elec. Steel Castings Co.	Fe Van
Standard Oil Co. of Calif.	Amm M Van
	Sod O Van
	Van Pent
Standard Oil Development Co.	Van Pent
	Van Pent CP
Standard Steel Works Division	Fe Van O M
	Fe Van Cru
Frederick Stearns & Co.	90% Van Metal
	Van Pent CP
J. L. Stifel & Sons, Inc.	Amm M Van
Stuart Foundry Co.	Fe Van
Superior Foundry Co.	Fe Van
Swedish Crucible Steel Co.	Fe Van
Symington-Gould Corp.	Fe Van
Taylor Wharton Iron & Steel Co.	Fe Van
Textile Chemical Co.	Amm M Van
Timken Roller Bearing Co.	Fe Van
Treadwell Engineering Co.	Fe Van O M
Joseph Turner & Co.	Van Pent
	90% Van Metal
Tyonite Corp. of America	90% Van Metal
The Udylite Corp.	95% Van Metal
Union Spring & Mfg. Co.	Fe Van
Union Steel Castings	Fe Van
Uniteast Corp.	Fe Van Cru
United Brass & Aluminum Co.	Fe Van O M
United Engineering & Foundry Co.	Fe Van O M
U. S. Fingerprint Products, Inc.	Sod O Van
U. S. Steel Corp.	Fe Van O M
Universal Cyclops Steel Corp.	Fe Van O M
	Fe Van Cru
	Van Pent
Valley Paint & Chemical Co.	Amm M Van
Valley Steel Casting Co.	Fe Van O M
Vanadium-Alloys Steel Co.	Fe Van Cru
Verona Chemical Co.	Van Pent
Vulcan Crucible Steel Co.	Fe Van Cru
Vulcan Iron Works	Fe Van O M
Waldrich Co.	Amm M Van
Washburn Wire Company	Fe Van O M
W. M. Welch Mfg. Co.	Amm M Van
	Van Pent CP
West Michigan Steel Foundry Co.	Fe Van O M
West Steel Casting Co.	Fe Van
Will Corp.	Van Pent
	Amm M Van
Worth Steel Co.	Fe V O M
Youngstown Foundry & Mach.Co.	Fe V O M
Youngstown Sheet & Tube Co.	Fe V O M
Zenith Foundry Co.	Fe Van O M
Zimmerman Steel Co.	Fe V O M

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CANADIAN

CUSTOMER	MATERIAL
Canadian Brake Shoe & Foundry Co.	Fe Van
Consolidated Mining & Smelting	Van Pent
Deloro Smelting & Refining Co., Ltd.	Van Metal
Dominion Foundries & Steel, Ltd.	Fe Van

1940 - DOMESTIC AND CANADIAN PRICE RANGES

Fe Van D H	- $2.70 to $2.80 per lb. Ctd. V
Fe Van Cru	- $2.80 to $2.90 " " " "
Fe Van Pri	- $2.90 to $3.00 " " " "
Van Pent	- $1.10 per lb. Ctd. V_2O_5 to 1.25 per lb. mat'l
Amm M Van	- $1.90 to 2.20 per lb.
V Metal 90%	- $3.30 to 3.50 per lb. Ctd. V
V Metal 95%	- $0.40 to $0.45 per gram
V Pent C P	- $7.00 per lb.
Amm M Van C P	- $7.00 per lb.
Sod O Van	- $0.90 to $2.20 per lb.

Prices the same to all customers for similar quantities, sizes on contract and spot basis. Special grinding and quality extras not indicated in above standing prices.

VANADIUM CORPORATION OF AMERICA

SALES OF VANADIUM ORE, FLUE DUST, VANADIC ACID (VANADIUM PENTOXIDE & FERRO VANADIUM AND PRICE BASES
YEAR - 1941

DOMESTIC

Customer	Material
Abbott Laboratories	Amm M Van CP
Acme Foundry Co.	Fe. V
Adirondock Foundries & Steel	Fe. V
Aetna-Standard Eng. Co.	Fe. V
Ahern Textile Print	Amm M Van
Dean Wood Steel Co.	Fe. V
Allegheny Ludlum Steel Corp.	Fe. V
" " "	V. Pent.
Allied Textile Printers	Amm M Van
Altens Foundry & Machine Co.	Fe. V
American Car & Foundry Co.	Fe. V
American Chain & Cable Co.	Fe. V
American Cyanamid & Chem. Co.	V. Pent.
American Electro Metal Corp.	V. Metal
American Locomotive Co.	Fe. V
American Smelting & Refining Co.	V. Pent.
American Steel Foundries	Fe. V
Apex Foundry Co.	Fe. V
Apponaug Co.	Amm M Van
Arnold Print Works	Amm M Van
Auto Specialties Mfg. Co.	Fe. V
Babcock & Wilcox Co.	Fe. V
J. T . Baker Chemical Co.	V. Pent.
Barrett Co.	V. Pent.
Bell Telephone Laboratories	Va. V
J. & H. Berge	Amm M Van
Berg Chemical Co.	Amm M Van
Bethlehem Steel Co.	Fe. V
" "	V. Pent.
Bonney-Floyd Co.	Fe. V
Braeburn Alloy Steel Corp.	Fe. V
Burnside Steel Foundry Co.	Fe.V
Burt Foundry Co.	Fe. V
A. M. Byers Co.	Fe. V
Calco Chemical Div.	V. Pent.
Calumet Steel Castgs. Corp.	Fe. V
Campbell Wyant & Cannon Fdry. Co.	Fe. V
Carbic Color & Chem. Co.	Amm M Van
Carborundum Co.	V. Pent.
Carnegie Institute of Tech.	Fe. V
Carus Chemical Co.	V. Pent.
Central Iron Foundry	Fe. V
Central Scientific Co.	V. Pent.
	Sod O Van
Chapman Valve Mfg. Co.	Fe. V
Chicago Steel & Wire Co.	Fe. V
Chrysler Corp.	Fe. V
City Chemical Co.	V. Pent.
Claflin Co.	Amm M Van CP
Clark Equipment Co.	Fe. V

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Customer	Material
Climax Molybdenum Corp.	Fe. V
Cold Spring Bleachery	Amm M Van
H. Cole Co.	V. Pent CP
Coleman & Bell Co.	V. Pent.
Colonial Steel Div.	Fe. V
Columbia University	V. Pent.
Consolidated Chem. Industries	V. Pent.
Continental Finger Print Prod.	Sod O Van
Continental Roll & Steel Fdry.	Fe. V
Copperweld Steel Co.	Fe. V
Crobolt Inc.	V. Metal
Crucible Steel Cast. Co.(Mil)	Fe. V
Crucible Steel Co. of Amer.	Fe. V
" " "	V. Pent.
A. Daigger & Co.	V. Metal
Davis & Cook Inc.	V. Metal
Dayton Steel Foundry Co.	Fe. V.
Dentalium Labs.	V. Metal
Detroit Alloy Steel Co.	Fe. V
Detroit Steel Cast. Co.	Fe. V
Henry Disston & Sons	Fe. V
Doonan & Smith Chemical Co.	Amm M Van
B . F. Drakenfeld & Co.	V. Pent.
E. I. DuPont de Nemours	V. Pent.
" " "	Amm M Van CP
Duraloy Co.	Fe. V
E. A. Laboratories	V. Pent.
Elmer & Amend	V. Pent.
Electric Steel Cast. Co.	Fe. V
Electrocast Steel Fdry. Co.	Fe. V
Empire Ordnance Corp.	Fe. V
Ensign Foundry Co.	Fe. V
Erie Forge Co.	Fe. V
Erie Forge & Steel Co.	Fe. V
Etna Machine Co.	Fe. V
Fairmount Chemical Co.	V. Metal
Falk Corp.	Fe. V
Faurat Prat & Iden System	Sod O Van
Ferro Enamel Co.	Amm M Van
Ferro Mach. & Fdry. Co.	Fe. V
Follansbee Steel Corp.	Fe. V
Foote Mineral Co.	V. Pent.
Ford Motor Co.	Fe. V
Forging & Cast. Corp.	Fe. V
Fort Pitt Steel Cast. Co.	Fe. V
Frenchtona Porcelain Co.	V. Pent.
" "	V. Pent. CP
Geigy Co.	Amm. M Van
Gelatin Products Co.	V. Pent CP
General Aniline Works	V. Pent.
General Chemical Co.	V.Pent.
" "	V. Pent CP
General Dyestuff Corp.	Amm M Van
General Electric Co.	Fe V
" "	V. Metal
General Steel Casting Corp.	Fe. V
Gorham Tool Co.	Fe V
Great Lakes Steel Corp.	Fe V

Customer	Material
Hall China Co.	V. Pent.
Hampton Co.	Amm M Van
Charles Hardy Inc.	V. Metal
Harrison Steel Cast. Co.	Fe. V
Harshaw Chemical Co.	V. Pent.
Hartford Electric Steel Corp.	Fe. V
Heading Inc.	Amm M Van
Heil Corp.	V. Pent.
Heppenstall Co.	Fe. V
Heyden Chemical Corp.	V. Pent.
" "	V. Pent CP
Hilton-Davies Chemical Co.	V. Pent.
Hobart Mfg. Co.	Fe. V
O. Hommel Co.	V. Pent.
Hudson Fur Dyeing	Amm M Van
Hughes Tool Co.	Fe. V
Hytensil Aluminum Co.	V. Metal
Ingersoll Steel & Disc Div.	Fe. V
Inland Steel Co.	Fe. V
Insecticide Corp. of Amer.	V. Pent.
International Harvester Co.	Fe. V.
Interstate Laboratories	V. Pent.
Jessop Steel Co.	Fe. V
Jones & Laughlin Steel Corp.	Fe. V
Joslyn Mfg. & Supply Co.	Fe. V
Frederick Kahl Iron Co.	Fe. V
Kali Mfg. Corp.	Amm M Van
Kearny Mfg. Co.	Sod M Van CP
Kensington Steel Co.	Fe. V
Keokuk Steel Castings Co.	Fe. V
Knoxville Iron Co.	Fe. V
Laboratory Materials Co.	Sod M Van
Latrobe Elec. Steel Co.	Fe. V
Lebanon Steel Foundry	Fe. V
LeTourneau Co. of Georgia	Fe. V
Lett & Co.	Fe. V
Lewis Co.	Amm M Van
Lewis Foundry & Mach. Div.	Fe. V
Lima Locomotive Works	Fe. V
Link Belt Co.	Fe. V
Locomotive Fin. Material Co.	Fe. V
Lukens Steel Co.	Fe. V
Lynchburg Foundry Co.	Fe. V
A. D. Mackay	V. Metal
Machined Steel Cast. Co.	Fe. V
P. R. Mallory & Co. Inc.	V. Pent.
Marion Steam Shovel Co.	Fe. V.
Mason Color & Chem Wks.	V. Pent.
Mass. Inst. of Tech.	Fe. V
Massillon Steel Cast. Co.	Fe. V
Maynard Elec. Steel Cast. Co.	Fe. V
McArthur Chem. Co.	Amm M Van
McKesson & Robbins Inc.	V. Pent.
Wm.S. Merrill Co.	V. Pent.
Meeta Machine Co.	Fe. V
Metal & Thermit	Fe. V
Michigan Steel Casting Co.	Fe. V

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1941

Customer	Material
Midvale Co.	Fe. V
" "	V. Metal
Milwaukee Steel Fdry. Co.	Fe. V
Monroe Steel Cast. Co.	Fe. V
Motor Castings Co.	Fe. V
Motor & Machinery Cast. Corp.	Fe. V
Muskegon Piston Ring	Fe. V
Nat'l Aniline & Chem. Co.	V. Pent.
	Amm M Van
Nat'l Forge & Ord. Co.	Fe. V
Nat'l Mall. & Steel Cast. Co.	Fe. V
Nat'l Supply Co.	Fe. V
Newport News Ship & Drydock	Fe. V
N. Y. Quinine & Chem. Works	Amm M Van CP
Nobilium Products, Inc.	V. Metal
Northwestern Univ.	V. Pent CP
Ohio Steel Foundry Co.	Fe. V
Oklahoma Steel Cast. Co.	Fe. V
Omaha Steel Works	Fe. V
Paden City Pottery Co.	Amm M Van
Parker Pen Co.	Amm M Van
Pelton-Kurtz Supply Co.	Fe. V
Penn. Elec. Steel Cast. Co.	Fe. V
Penn. State College	V. Pent.
	V. Metal
The Permutit Co.	Amm M Van
Peru Fdry. Co.	Fe. V
Pittsburgh Steel Co.	Fe. V
Red Wing Pottery Co.	V. Pent.
Reichhold Chemicals, Inc.	V. Pent.
	Amm M Van
Reliable Ink & Stationery Co.	Amm M Van
Reliance Steel Cast. Co.	Fe. V
Republic Chemical Corp.	V. Pent.
Republic Steel Corp.	Fe. V
	V. Pent.
Riley Stoker Corp.	Fe. V
Robinson-Ramsbottom Pottery	Amm M Van
Ross Meehan Fdries.	Fe. V
Rotary Elec. Steel Corp.	Fe. V
Saginaw Metal Products Co.	Fe. V
St. Louis Steel Cast. Co.	Fe. V
E. H. Sargent Co.	V. Pent.
	Amm M Van
	Amm M Van CP
Saubrook Steel Castings	Fe. V
Scientific Glass App. Co.	V. Pent.
	Amm M Van
Scurlock Littman Eng. Ass.	Fe. V
Sealkote Corp.	V. Pent.
Shamokin Dye & Print Works	Amm M Van
The Sharples Solvents Corp.	V. Pent.
	Amm M Van
	Amm M Van CP
Simonds Saw & Steel Co.	Fe. V
Sirtex Printing Co.	Amm M Van
Sivyer Steel Cast. Co.	Fe. V
A. O. Smith Corp.	Fe. V

Customer	Material
Smith Steel Fdry. Co.	Fe. V
Spencer Heater Div.	Fe. V
Standard Elec. Steel Cast.	Fe. V
Standard Oil Co. of Calif.	Amm M Van
Standard Oil Co. of La.	Amm M Van
	V. Pent. CP
Standard Oil Development Co.	V. Pent. CP
	Amm M Van CP
Standard Steel Works, Div.	Fe. Van.
Standard Ultramarine	V. Pent.
Stauffer Chem. Co.	V. Pent.
Sterling Steel Cast. Co.	Fe. V
J. L. Stifel & Sons, Inc.	Amm M Van
Stoody Co.	Fe. V
Stuart Foundry Co.	Fe. V
Superior Steel & Mall. Cast.	Fe. V
Swansea Print Works	Amm M Van
Swedish Crucible Steel Co.	Fe. V
Symington-Gould	Fe. V
Taylor-Wharton Iron & Steel	Fe. V
Technical Porcelain & C.W.Co.	V. Pent.
Textile Chemical Co.	Amm. M Van
Timken Roller Bearing Co.	Fe. V
Titanium Alloy Mfg. Co.	V. Pent.
Treadwell Eng. Co.	Fe. V
Union Elec. Steel Corp.	Fe. V
Union Sprg. & Mfg. Co.	Fe. V
Union Steel Cast.	Fe. V
Unitcast Corp.	Fe. V
United Brass & Alum. Co.	Fe. V
U. S. Fingerprint Prod.	Sod O Van
U. S. Foundries	Fe. V
U. S. Steel Corp.	Fe. V
Univ.-Cyclops Steel Corp.	Fe. V
	V. Pent.
The Upjohn Co.	V. Pent.
Valley Steel Cast. Co.	Fe. V
Vanadium Alloys Steel Corp.	Fe. V
Verona Chemical Co.	V. Pent.
Vulcan Crucible Steel Co.	V. Pent.
" " "	Fe. V
Vulcan Iron Works	Fe. V
Waldrich Co.	Amm M Van
Geo. T. Walker & Co.	V. Pent.
" " "	Amm M Van
" " "	Amm M Van CP
Washburn Wire Co.	Fe. V
W. M. Welch Mfg. Co.	Amm M Van
West Mich. Steel Fdry.	Fe. V
West Steel Cast. Co.	Fe. V
Westinghouse Elec. & Mfg. Co.	Fe. V
Wilkening Mfg. Co.	Fe. V
Worth Steel Co.	Fe. V
Youngstown Fdry. & Mach. Co.	Fe. V
Youngstown S & T Co.	Fe. V
Zenith Foundry Co.	Fe. V
R. M. Zerby	V. Pent.

1941

CANADIAN

Customer	Material
Atlas Steels Ltd.	Fe. V
Canadian Brake Shoe & Fdry. Co.	Fe. V
Consolidated Mining & Smelt. Co.	V. Pent.
Dominion Foundries & Steel Ltd.	Fe. V
Dominion Tar & Chem. Co.	Ann N Van

1941 Domestic and Canadian Price Ranges

Fe. VCH	$2.70 to 2.80 per lb.Ctd.V
Fe. V Cru.	2.80 to 2.90 " "
Fe. V Fri.	2.90 to 3.00 " "
V. Pent.	1.10 per.lb.Ctd.V205 to 1.25 per lb.Metl.
Ann N.Van	1.90 to 2.20 per lb.
V.Metal 90%	3.30 to 3.50 per lb. Ctd.V
V.Metal 99%	.40 to .45 per gram
V.Pent.CP	7.00 per pound
Amm.N.Van CP	7.00 per pound
Sod.O Van	.90 to 2.20 per pound

Prices the same to all customers for similar quantities, since - on contract and spot bases. Special grinding and quality extras not indicated in above standard prices.

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VANADIUM CORPORATION of AMERICA
Sales of Vanadium Ore, Flue Dust, Vanadic Acid
(Vanadium Pentoxide) & Ferro Vanadium
and Price Ranges
YEAR - 1942

Domestic

CUSTOMER	Material
Abbott Laboratories	Van Pent CP
Advance Foundry Co.	Fe V
Acme Steel & Malleable Iron Works	"
Adirondack Foundries & Steel, Inc.	"
The Aetna-Standard Eng. Co.	"
Ahern Textile Print	Amm M Van
Alan Wood Steel Co.	Fe V
Allegheny Ludlum Steel Corp.	"
" " " "	Van Pent
Allis Foundry Products, Inc.	Fe V
American Cyanamid & Chemical Co.	Van Pent
American Locomotive Co.	Fe V
American Rolling Mill Co.	Fe V
American Smelting & Refining Co.	Van Pent
American Steel Foundries	Fe V
American Well & Prosp. Co.	Fe V
Atlas Steels, Ltd.	Fe V
Babcock & Wilcox Co.	Fe V
J. T. Baker Chemical Co.	Amm M Van
Base Foundry & Machine Divn.	Fe V
Bell Telephone Lab.	Van Metal
Bethlehem Steel Co.	Fe V
" " "	Van Pent
Bonney Floyd Co.	Fe V
Braeburn Alloy Steel Corp.	Fe V
Braun Corp.	Amm M Van CP
Brocker Chemical Co.	Van Pent
Bucyrus Erie Co.	Fe V
Burnside Steel Foundry Co.	Fe V
A. M. Byers Co.	Fe V
Carbic Color & Chemical Co.	Amm M Van
Carns Chemical Co., Inc.	Van Pent
Celanese Corp. of America	" "
Chapman Valve Manufacturing Co.	Fe V
Chicago Steel & Wire Co.	Fe V
Ciba Co., Inc.	Van Pent
Cold Spring Bleachery	Amm M Van
H. Cole Co.	Van Pent CP
The Coleman & Bell Co., Inc.	Van Pent
The Colonial Foundry Co.	Fe V
Colonial Steel Co.	Fe V
Consolidated Chemical Industries, Inc.	Van Pent

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Domestic

YEAR 1942 - Page 2

CUSTOMER	Material
Continental Roll & Steel Foundry Co.	Fe V
Copperweld Steel Co.	Fe V
Crobalt, Inc.	V Metal
Crucible Steel Co. of America	Fe V
" " " "	Van Pent
Henry Disston & Sons, Inc.	Fe V
" " "	Van Pent
E. I. Du Pont de Nemours & Co.	Amm M Van CP
The Duraloy Co.	Fe V
E. A. Laboratories, Inc.	Van Pent
Elmer & Amend	" "
Electric Boat Co.	Amm M Van
Electric Steel Castings Co.	Fe V
Electrocast Steel Foundry Co.	Fe V
Empire Ordnance Co.	Fe V
Ensign Foundry Co.	Fe V
Erie Forge	Fe V
Erie Forge & Steel Co.	Fe V
Falk Corp.	Fe V
Faurot Protective & Identification Sys.	Sod Van
Ferro Enamel Corp.	Amm M Van
Firth-Sterling Steel Co.	Fe V
Follansbee Steel Corp.	Fe V
Ford Motor Co.	Fe V
Forging & Casting Corp.	Fe V
General Color & Chemical Co.	Van Pent
" " " "	Amm M Van
General Dyestuff Corp.	Amm M Van
Gorham Tool Co.	Fe V
Emil Greinic Co.	Amm M Van
Charles Hardy, Inc.	V Metal
Harrison Steel Castings Co.	Fe V
Harshaw Chemical Co.	Van Pent
Harvard University	Van Pent CP
Heppenstall Co.	Fe V
O. Hommel Co.	Van Pent
Hytensil Aluminum Co.	V Metal
Ingersoll Steel & Disc. Divn.	Fe V
Inland Steel Co.	Fe V
International Harvester Co., Inc.	Fe V

Domestic

YEAR 1942 - Page 3

CUSTOMER	Material
Jessop Steel Co.	Fe V
Jones & Laughlin Steel Co.	Fe V
Frederick Kahl Iron Co.	Fe V
M. M. Kellogg Co.	Amm M Van
Latrobe Electric Steel Co.	Fe V
Lebanon Steel Foundry	Fe V
Lewis Co.	Amm M Van
Lukens Steel Co.	Fe V
A. D. Mackay	V Metal
Machined Steel Casting Co.	Fe V
Mason Color & Chemical Works	Amm M Van
Master Mix Paint & Lacquer Corp.	Sod M Van
Maynard Elec. Steel Castings Co.	Fe V
Mesta Machine Co.	Fe V
Metal & Thermit Corp.	Van Pent CP
Michigan Steel Castings Co.	Fe V
Midvale Co.	Fe V
Monroe Steel Castings Co.	Fe V
Mapco, Inc.	Fe V
Nathan Chemical Co.	Van Pent
National Analine Divn.	Van Pent
* * *	Amm M Van
National Bureau of Standards	Amm M Van
National Forge & Ordnance	Fe V
National Lead Co.	Sod M Van
National Malleable & Steel Castings Co.	Fe V
National Supply Co.	Fe V
Newport News Shipbuilding & Drydock Co.	Fe V
Nixon Nitration Works	Van Pent
Nobilium Products, Inc.	V Metal
Ohio Steel Foundry Co. (Springfield, Ohio)	Fe V
Osalid Products Divn.	Amm M Van
Parker Pen Co.	Amm M Van
The Patterson Screen Co.	Van Pent CP
Penn Electric Steel Castings Co.	Fe V
Pittsburgh Plate Glass Co.	Van Pent
Mayrex Printers, Inc.	Amm M Van
RCA Manufacturing Co.	Van Pent CP
Reilly Tar & Chemical Corp.	Amm M Van CP
* * * *	Van Pent CP
Republic Steel Corp.	Fe V
* * *	V Pent
Rhode Island State College	Amm M Van CP
Rotary Electric Steel Co.	Fe V
E. H. Sargent Co.	Van Pent
* * *	Van Pent CP
* * *	Amm M Van CP

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Domestic YEAR 1942 - Page 4

CUSTOMER	Material
Shell Development Co.	Van Pent
Sherwin Williams Co.	Amm M Van
Simonds Saw & Steel Co.	Fe V
Sirtex Printing Co.	Amm M Van
George F. Smith	Van Pent
Solar Aircraft Co.	Van Pent CP
Standard Electric Steel Castings Co.	Fe V
Standard Steel Works Co.	Fe V
Standard Ultramarine Co.	Van Pent
Stauffer Chemical Co.	Van Pent
Sterling Steel Casting Co.	Fe V
The Stoody Co.	Fe V
Superior Steel & Malleable Castings Co.	Fe V
Textile Chemical Co.	Amm M Van
Timken Roller Bearing Co.	Fe V
" " " "	Van Pent
Tinnite Co.	Fe V
Treadwell Engineering Co.	Fe V
Union Electric Steel Corp.	Fe V
Union Steel Castings	Fe V
Unitcast Corp.	Fe V
United Brass & Aluminum Co.	Fe V
U.S. Fingerprint Products, Inc.	Sod Van
U.S. Foundries, Inc.	Fe V
U.S. Steel Corp.	Fe V
" " "	V Pent
Universal-Cyclops Steel Corp.	V Pent
" " " "	Fe V
University of Pittsburgh	Amm M Van
Valley Steel Castings Co.	Fe V
Vanadium Alloys Steel	Fe V
Vulcan Crucible Steel Co.	Fe V
" " " "	Van Pent
Waldrich Co.	Amm M Van
George T. Walker	Amm M Van
" " "	Amm M Van CP
" " "	V Pent CP
T. F. Washburn Co.	Van Pent
Washburn Wire Co.	Fe V
West Steel Castings	Fe V
Westinghouse Elec. & Mfg. Co.	Fe V
Wilkens Anderson Co.	Sod Van
Worth Steel Co.	Fe V.

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Domestic YEAR 1942 - Page 5

CUSTOMER	Material
Youngstown Foundry & Machine Co.	Fe V
Zenith Foundry Co.	Fe V
A. M. Derby	Van Pent

Canadian

The Consolidated Mining & Smelting	Van Pent
Deloro Smelting & Refining Ltd.	V Metal
Dominion Foundries & Steel Ltd.	Fe V
Dominion Tar & Chemical Co.	Amm M Van
McArthur Chemical Co., Ltd.	Amm M Van

1942 Domestic & Canadian Price Ranges

Fe V - OH	-	$2.70 to $2.80 per Lb Ctd Van
Fe V - Cru	-	2.80 " 2.90 " " " "
Fe V - Pri	-	2.90 " 3.00 " " " "
V Pent	-	1.10 per Lb Ctd V_2O_5 to $1.25 per LB material
Amm M Van	-	1.90 to 2.20 per Lb
V Metal 90%	-	3.30 " 3.50 " " Ctd V
V Metal 95%	-	.40 " .45 " gram
V Pent CP	-	7.00 per Lb
Amm M Van CP	-	7.00 " "
Sod Van	-	.90 to 2.20 per Lb

Prices the same to all customers for similar quantities, sizes - on contract and spot bases. Special grinding and quality extras not indicated in above standard prices.

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VANADIUM CORPORATION OF AMERICA

Sales of Vanadium Ore, Flue Dust, Vanadic Acid (Vanadium Pentoxide), Ferro Vanadium and Price Ranges

YEAR 1943

Domestic

CUSTOMER	MATERIAL
A. C. Spark Plug Div.	V Pent
Actare, Inc.	FeV
Adirondack Foundries & Steel	FeV
Allegheny Ludlum Steel Corp.	FeV
Allis Chalmers Mfg. Co.	V Pent.
American Cyanamid Co.	FeV
American Enka Corp.	V Pent
American Hoist & Derrick Co.	AmmM Van
American Locomotive Co.	AmmM Van CP
American Smelting & Refining Co.	FeV
Apex Chemical Co.	FeV
Apponaug Co.	V Pent.
Armstrong Cork Co.	V Pent.
	AmmM Van
	V Pent CP
Baker & Co.	V Metal
J. T. Baker Chemical Co.	AmmM Van CP
Barnaby-Cheney Engineering Co.	V Pent
Bell Telephone Laboratories	FeV
Bethlehem Steel Co.	FeV
B. G. Corp.	V Pent.
Bonney-Floyd Co.	FeV
Bonnot Co.	FeV
Borden & Remington Co.	AmmM Van
Braeburn Alloy Steel Corp.	FeV
Braun-Knecht Heiman Co.	V Pent CP
	V Pent
A. M. Byers Co.	FeV
Carbic Color & Chemical Co.	AmmM Van
Carus Chemical Co., Inc.	V Pent
Central Iron Foundry Co.	FeV
Central Scientific Co.	Sod M Van
	Sod M Van Comm.
Chemstar, Inc.	Sod O. Van
Chicago Foundry Co.	FeV
City Chemical Co.	V Pent
Clark Equipment Co.	FeV
H. Cole Co.	V Pent CP
Combustion Engineering Co., Inc.	V Pent
Commercial Solvents Corp.	V Pent
Continental Roll & Steel Co.	FeV

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CUSTOMER	MATERIAL
Copperweld Steel Co.	FeV
Crane Co.	FeV
Crobalt, Inc.	V Metal
Crucible Steel Co. of America	FeV
W. M. Curtin & Co.	AmmM Van CP
Denver Fire Clay Co.	V Pent
Dickson Gun Plant	FeV
Henry Disston & Sons	FeV
Dow Chemical Co.	V Pent
E. I. DuPont de Nemours	AmmM Van
	AmmM Van CP
Dye Specialties Corp.	V Pent
	AmmM Van
Eastman Kodak Co.	AmmM Van CP
Elmer & Amend	V Pent
Emil Engel	AmmM Van
Empire Ordinance Corp.	FeV
Erie Forge Co.	FeV
Erie Forge & Steel Co.	FeV
Faurot Protective System	Sod O Van
Foote Mineral Co.	V Pent
Ford Motor Co.	FeV
	V Pent
Forging & Casting Corp.	FeV
Fraschi Brothers	V Pent
General Emiline Works	V Pent
	AmmM Van
General Dyestuff Corp.	AmmM Van
G. W. Gesing	V Metal
Gorham Tool Co.	FeV
Hampton Co.	AmmM Van
Hansell-Elcock Co.	FeV
Charles Hardy, Inc.	V Metal
	FeV
Harshaw Chemical Co.	AmmM Van CP
	V Pent CP
Heil Corp.	V Pent
	Sod M Van
	V Pent
Heppenstall Co.	FeV
O. Hommel Co.	V Pent
	Amm M Van
Ingersoll Steel & Disc Div.	FeV
Jessop Steel Co.	FeV
Jones & Laughlin Steel Corp.	FeV
Killian Research Laboratories	Sod MVan CP
Kolsman Instr. Div.	V Pent

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CUSTOMER	MATERIAL
Latrobe Electric Steel Co.	FeV
Lehigh University	V Pent.
Lukens Steel Co.	FeV
A. D. MacKay	V Metal
Malleable IronFittings Co.	FeV
Mallinckrodt Chemical Works	V Pent.
Mason Color & Chemical Works	Amm Van
Mesta Machine Co.	FeV
Metal & Thermit Corp.	FeV
Midvale Co.	FeV
Milwaukee Steel Foundry Co.	FeV
Mine & Smelters Supply Co.	V Pent CP
	Amm MVan CP
Muskegon Piston Ring Co.	FeV
National Aniline Co.	V Pent
	Amm Van
National Forge & Ordnance Co.	FeV
Naugatuck Chemical Div.	V Pent
Newport News Shipbuilding & Dry Dock Co.	FeV
Niagara Alkali Co.	V Metal
Niagara Falls Smelting Corp.	V Metal
Niagara Sprayer Co.	V Pent
Nobilium Products, Inc.	V Metal
Nu-Ballium, Inc.	V Metal
Ohio Steel Foundry Co.	FeV
E. Dewitt Osborne	Amm MVan
Otis Elevator Co.	FeV
Pacific Vanasit Co.	AlV
Pan American Alloys, Inc.	AlV
Pa. Electric Steel Castings Co.	FeV
Pa. State College	V Metal
Penn Rivet Corp.	V Metal
Phillips Petroleum Co.	V Pent
	V Pent CP
	Sod O Van
	Amm MVan CP
Pittsburgh Rolls Div (Blaw Knox Co.)	FeV
Raw Chemicals, Inc.	V Pent
RCA Victor Div. of RCA	V Metal
Reduction & Refining Co.	V Pent CP
Reichhold Chemicals, Inc.	V Pent
Reliable Ink & Stationery Co.	Amm M Van
Reliance Steel Castings Co.	FeV
Reproduction Products Co.	V Pent
Republic Steel Corp.	FeV
Reynolds Metals Co.	AlV
Roemer Drug Co.	V Pent CP
Rotary Electric Steel Co.	FeV

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CUSTOMER	MATERIAL
Rotomet Corp.	FeV
Rustless Iron & Steel Co.	FeV
Saginaw Malleable Iron Div.	FeV
Scientific Glass Apparatus Co.	AmmM Van
E. H. Sargent Co.	V Pent
Simonds Saw & Steel Co.	FeV
Sirtex Printing Co.	AmmM Van
Standard Electric Steel Catgs. Co.	FeV
Standard Steel Works Co.	FeV
Standard Oil Development Co.	AmmM Van CP
	AmmM Van
	V Pent
	V Pent CP
Standard Ultramarine Co.	V Pent
Stauffer Chemical Co.	V Pent
Sterling Steel Casting Co.	FeV
Stoody Co.	FeV
Strong Cobb & Co.	V Pent
Strong Steel Foundry Co.	FeV
Sylvania Electric Products	AmmM Van
	V Pent
	AmmM Van CP
	V Pent CP
Textile Chemical Co.	Amm MVan
Timken Roller Bearing Co.	FeV
Titanium Alloy Mfg.	V Pent
The Tredegar Co.	FeV
Tungsten Alloy Mfg.	V Metal
Union Electric Steel Corp.	FeV Cru
Union Steel Castings Div.	FeV
United Brass & Aluminum Co.	FeV
U. S. Steel Corp.	FeV
Universal Cyclops Steel Corp.	V Pent
	FeV
University of California	V Metal
University of Florida	Amm M Van
University of Pittsburgh	V Pent
	Amm MVan CP
Valley Steel Casting Co.	FeV
Vanadium Alloys Steel Co.	FeV
	V Metal
Vulcan Crucible Steel Co.	FeV
Waldrick Co.	Amm MVan
Geo. T. Walker & Co.	Amm MVan CP
Wall-Colomony Corp.	V Pent
Wallwork Foundry Co.	FeV
Warren Foundry & Pipe Corp.	FeV

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CUSTOMER	MATERIAL
Washburn Wire Co.	FeV
West Steel Casting Co.	FeV
Westinghouse Electric & Mfg.	FeV
	V Metal
Well Corp.	Amm M Van

CANADIAN

CUSTOMER	MATERIAL
Deloro Smelting & Refining Co.	V Metal
Electrometallurgical Co. of Canada	FeV

1943 DOMESTIC & CANADIAN PRICE RANGES

FeVOH	$2.70 to 2.80 per lb. ctd. V
FeV Cru	2.80 to 2.90 " " " "
FeV Pri	2.90 to 3.00 " " " "
V Pent	1.10 per lb. ctd V205 to 1.25 per lb. matl.
Amm M Van	1.90 to 2.20 per pound
V Metal 90%	3.30 to 3.50 per lb. ctd. V
V Metal 95%	.40 to .45 per gram
V Pent CP	7.00 per pound
Amm M Van CP	7.00 " "
Sod O Van	.90 to 2.20 per pound

Prices the same to all customers for similar quantities, sizes - on contract and spot bases. Special grinding and quality extras not indicated in above standard prices.

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VANADIUM CORPORATION OF AMERICA

Sales of Vanadium Ore, Flue Dust, Vanadic Acid
(Vanadium Pentoxide) and Ferro Vanadium

and Price Ranges

Domestic YEAR - 1944 Page 1

CUSTOMER	MATERIAL
Artare, Inc.	FeV
Adirondack Fdries & Steel Co.	"
Air Reduction Sales Co.	V Pent CP
Alan Wood Steel Co.	FeV
Allegheny-Ludlum Steel Corp.	"
	V Pent
Allis Chalmers Mfg. Co.	FeV
Alten's Foundry & Machine Co.	"
Aluminum Co. of America	Amm M Van
	So Van
Aluminum Forgings, Inc.	V Metal
American Cyanamid & Chem. Co.	V Pent
American Fdry. Equipment Co.	FeV
American Locomotive Co.	"
American Viscose Corp.	AmmM Van CP
American Well & Prospecting Co.	FeV
Arcrods Corp.	"
Baker & Co.	V Metal
J. T. Baker Chem. Co.	AmmM Van CP
	V Pent CP
Barrett Co.	V Pent
Batelle Memorial Inst.	"
Bay State Abrasive Prod. Co.	"
Belmont Smelt. & Ref. Co.	V Metal
Bethlehem Steel Co.	Fe V
	V Pent.
Braun Corp.	"
Brown Industries	FeV
Buffalo Apparatus Co.	AmmM Van
Brunside Steel Fdry. Co.	FeV
Burrell Tech. Supply Co.	AmmM Van
Burt Foundry Co.	FeV
A. M. Byers Co.	"
Calif. Research Co.	"
	Amm M Van
	AmmM Van CP
	V Pent
	V Pent CP
	V Metal
Campbell Wyant & Cannon Fdy. Co.	FeV
Carbic Color & Chem. Co.	AmmM V
Carbide & Carbon Chem. Corp.	AmmM Van CP
Carus Chemical Co.	V Pent

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Domestic YEAR — 1944 Page 2

CUSTOMER	MATERIAL
Case Mfg. Co., Wm. A. & Son	V Pent
Central Iron Foundry	FeV
Chapman Valve Mfg. Co.	"
Chematar, Inc.	V Pent CP
Chemical Product Corp.	V Pent
Chemo Puro Mfg. Co.	V Pent CP
City Chemical Co.	So Van
Clark Equipment Co.	FeV
Climax Molybdenum Corp.	V Metal
Sigmond Cohn Co.	FeV
Cold Spring Bleachery	Amm M Van
H. Cold Co.	V Pent CP
Coleman & Bell Co.	V Pent
Colonial Foundry Co.	FeV
Colonial Steel Div.	"
Combustion Engineering Co.	V Pent
Continental Fdry. & Mach. Co.	FeV
Copperweld Steel Co.	"
Corning Glass Works	V Pent
Crucible Steel Cast. Co. (Mil.)	FeV
Crucible Steel Co. of America	"
	V Metal
Dareis Emergency Equipment Co.	V Pent
	V Pent CP
Dehydro Co.	FeV
	V Metal
Dickson Gun Plant	FeV
Henry Disston & Sons, Inc.	"
Dow Chemical Co.	Sod O Van
B. F. Drakenfeld Co.	V Pent
Drug Products, Inc.	AmmM Van CP
E. I. DuPont Nemours	V Pent
	V Pent CP
	AmmM Van
	AmmM Van CP
	So Van
Eagle Grinding Wheel Co.	V Pent
Eastman Kodak Co.	AmmM Van
Eimer & Amend Co.	V Pent
Electric Auto Lite Co.	FeV
Electro Metallurgical Co.	"
Erie Forge Co.	"
Erie Forge & Steel Co.	"
Fairbanks Morse Co.	"
Fairmont Chemical Co.	V Metal
Falk Corp.	FeV
Ferro Enamel Corp.	AmmM Van
Follansbee Steel Corp.	FeV
Foote Mineral Co.	V Pent
Ford Motor Co.	FeV
General Aircraft Equip. Co.	"

Domestic — YEAR — 1944 — Page 3

CUSTOMER	MATERIAL
General Chemical Co.	V Pent
	AmmM Van CP
General Color & Chem. Co.	AmmM Van
General Dyestuff Corp.	"
General Motors Corp.	FeV
Glasgo Finishing Co.	V Pent CP
	AmmM Van CP
Goodall-Sanford, Inc.	AmmM Van
B. F. Goodrich Co.	"
Gorham Tool Co.	FeV
Goulds Pumps, Inc.	"
Great Lakes Steel Corp.	"
Gussack Machined Prods. Co.	V Pent CP
Hampton Co.	AmmM Van
Hansell Elcock Co.	FeV
Harbison Walker Refractories	V Pent CP
Charles Hardy, Inc.	V Metal
Harshaw Chemical Co.	V Pent CP
	AmmM Van CP
Harvel Research Corp.	AmmM Van CP
Joshua Hendy Iron Works	V Pent
Heppenstall Co.	FeV
Hercules Powder Co.	AmmM Van
	V Pent CP
Hinderliter Tool Co.	FeV
Hoffman-La Roche, Inc.	V Pent
O. Hormel Co.	"
Johns Hopkins Univ.	AmmM Van CP
Hypex Co.	V Pent
Infilco Co.	Sod. M. Van
Ingersoll Steel & Disc Div.	FeV
Inland Steel Co.	"
Interchemical Corp.	V Pent CP
International Harvester Co.	FeV
International Min. & Chem. Corp.	V Metal
Jessop Steel Co.	FeV
Jones & Laughlin Steel Corp.	"
Frederick Kahl Iron Foundry	FeV
Kimble Glass Co.	V Pent
	Sod O Van
Koppers Co.	Amm M Van
Lakeside Laboratories	V Pent CP
Latrobe Elec. Steel Co.	FeV
	V Metal
Locomotive Fin. Material Co.	FeV
Lukens Steel Co.	"
Lynchburg Foundry Co.	"
Machined Steel Cstg. Co.	"
A. D. Mackay	V Metal
P. R. Mallory & Co.	V Pent
Marion Steam Shovel Co.	FeV
Mass. Inst. of Tech.	V Pent
	V Pent CP
Maytag Co.	"

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Domestic YEAR — 1944 Page 4

CUSTOMER	MATERIAL
Mesta Machine Co.	FeV
Metal Hydrides Inc.	V Pent CP
Metal & Thermit Corp.	FeV
Midvale Co.	"
Mine & Smelter Sup. Co.	V Pent CP
Monroe Steel Castings Co.	FeV
Motor & Machinery Catgs. Co.	"
Muskegon Piston Ring Co.	"
National Alloy Steel Div.	"
Nat. Aniline Div.	AmmM Van
National Forge & Ordnance Co.	FeV
Niagara Falls Sm. & Ref. Co.	V Metal
Nichol Straight Fey Corp.	FeV
Nobilium Products, Inc.	V Metal
Nordberg Mfg. Co.	FeV
Ohio Steel Fdry. Co.	"
Ortho Products Inc.	AmmM Van CP
Otis Elevator Co.	FeV
Pacific Mills	AmmM Van
	AmmM Van CP
Parker Pen Co.	AmmM Van
Pennsylvania Elec. Steel Crystal Co.	FeV
Penn State College	AmmM Van CP
Peru Foundry Co.	FeV
Phillips Petroleum Co.	AmmM Van CP
	V Pent CP
Pittsburgh Fdry. & Mach. Co.	FeV
Pittsburgh Rolls Div.	"
Pittsburgh Steel Foundry Corp.	"
Polytechnical Inst. of Brooklyn	V Pent CP
Primos Chemical Co.	Sod O Van
Publicker Com. Alcohol Co.	V Pent
Pullman Standard Car & Fdry. Co.	FeV
Pusey & Jones Corp.	"
Rare Chemicals Inc.	V Pent
Raytheon Mfg. Co.	V Metal
Reliance Steel Cast. Co.	FeV
Rensselaer Valve Co.	FeV
Republic Steel Corp.	"
Roemer Drug Co.	AmmM Van CP
Ross Heehan Fdries.	FeV
Rotary Elec. Steel Co.	"
Roxboro Steel Co.	"
Rustless Iron & Steel Co.	"
Saginaw Mall. Iron Div.	"
E. H. Sargent Co.	V Pent
Sharon Steel Corp.	FeV
Sherwin-Williams Co.	AmmM Van
Simonds Saw & Steel Co.	FeV
	V Metal
Sirtex Printing Co.	AmmM Van

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Domestic — YEAR — 1944 — Page 2

CUSTOMER	MATERIAL
A. O. Smith Corp.	V Pent
Standard Elec. Steel Cstgs. Co.	FeV
Standard Oil Develop. Co.	"
	AmmM Van CP
	V Pent
	V Pent CP
Standard Oil Co. of La.	AmmM Van CP
	Sod O.Van
Standard Steel Works Div.	FeV
Standard Ultramarine Co.	V Pent
Standard Varnish Works	V Pent CP
Stauffer Chemical Co.	AmmM Van
	V Pent
Sterling Steel Casting Co.	FeV
Stoody Co.	"
Strook & Wittenberg	V Pent CP
Tennessee Eastman Co.	V Pent
Textile Chem. Co.	AmmM Van
Timken Roller Bearing Co.	FeV
TitaniumAlloy Mfg. Co.	V Pent
	V Metal
Union Steel Cstgs.	FeV
United Brass & Alum. Co.	FeV
United Engineering & Foundry Co.	"
United Merchants & Mfgrs. Corp.	AmmM Van
U. S. Steel Corp.	FeV
Universal Cyclops Steel Corp.	"
	V Pent
Univ. of California	V Pent CP
Univ. of Illinois	V Pent
Valley Steel Casting Co.	FeV
Vanadium-Alloys Steel Co.	"
	V Metal
Vicar Laboratories	V Pent
	V Metal
Victoreen Inst. Co.	AmmM Van CP
	V Pent CP
Vulcan Cru. Steel Co.	FeV
Waldrich Co.	AmmM Van
Walker & Co.	AmmM Van CP
	V Pent CP
Wellwork Fdry. Co.	FeV
Washburn Wire Co.	"
West Steel Casg. Co.	"
Westinghouse Elec. & Mfg. Co.	"
	V Pent
	V Metal
White Laboratories	V Pent
Wilkening Mfg. Co.	FeV
Will Corp.	V Pent CP
Worth Steel Co.	FeV
Youngstown Fdry. & Mach. Co.	"

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Canadian — YEAR — 1944 — Page 6

CUSTOMER	MATERIAL
Canadian Copper Refiners	Sod O Van
Canadian Laboratory Supplies	V Pent
Dominion Tar & Chem. Co.	AmmM Van
	V Pent
	FeV

1944 Domestic & Canadian Price Ranges

Fe VOH - $2.70 to $2.80 per lb. Ctd. Van.
Fe V Cru - $2.80 to $2.90 per lb. Ctd. Van.
Fe V Pri - $2.90 to $3.00 per lb. Ctd. Van.
V Pent - $1.10 per lb. V205 Ctd to $1.25 per lb. Mat'l
AmmM Van - $1.90 to $2.20 per pound
V Metal 90% - $3.30 to $3.50 per lb Ctd V
V Metal 95% - $ .40 to $ .45 per gram
V Pent CP - $7.00 per pound
AmmM Van CP - $7.00 per pound
Sod O Van - $ .90 to $2.20 per pound

Prices the same to all customers for similar quantities, sizes - on contract and spot bases. Special Grinding and Quality extras not indicated in above standard prices.

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IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 18

Compilation of United States Vanadium Corp. V_2O_5 Production, United with Rifle

		1	2	3	4	5	6	7	8
		Rifle Prod. Lbs., V_2O_5	Uravan Prod. Lbs. V_2O_5	Tot. Rifle Uravan Durango, Prod. Lbs. V_2O_5	Durango USV-MMC Prod. Lbs. V_2O_5	Gateway Alloys Inc.-USV-MMC Lbs. V_2O_5	Garfield Wyo. Corp. Prod. USV-MMC, Lbs. V_2O_5	Plant-A Gr. Jct. USV Contract Acct. Lbs. V_2O_5	Tot. USV Prod., Incl. Agencies Lbs. V_2O_5
1938		0	1,875,695	1,875,695		0			1,875,695
1939		0	1,995,717	1,995,717		1,000 (B)			1,995,717
1940		0	2,194,165	2,194,165		5,000 (B)			2,194,165
1941		0	2,376,700	2,376,700	0	5,000 (B)			2,376,700
1942	Rifle Plant Reopened	1,285,417	2,224,831	3,510,248	186,632	40,000 (J)		0	3,736,880
1943		1,567,685	1,734,229	3,301,914	852,884	80,000 (J)	0	185,620(J)	4,420,418
1944	Uravan Plant Closed June	1,852,921	701,174	2,554,095	300,377	8,500 (J)	257,192	820,606(J)	3,940,770
1945		1,729,260	83,901 (A)	1,813,161	365,616	0	0	916,095(J)	3,094,872

rp. V_2O_5 Production, United States Total Production, United States Imports and Comparison of Some with Electro-Met. Sales

7	8	9	10	11	12	13	14	15	16	17	18	19	20
Plant-A Gr.Jpt. USV Contract Acct. Lbs.V2O5	Tot.USV Prod.Incl. All Agencies Lbs.V2O5	VCA Naturita Prod. Lbs.V2O5	VCA-MMC Monticello Prod. Lbs.V2O5	Mammoth-St.Anthony Lead Vanadate Prod. Lbs. V2O5	Vitro Chem. Co. Prod. Lbs.V2O5	No.Continental Shattuck Chem. Co. Prod. Lbs. V2O5	Blanding Prod. Lbs V2O5	Tot.U.S. Domestic Prod.Lbs. V2O5	%Tot.Rifle Uravan, Durango Prod. In Rel.to Tot. U.S.Dom.Prod.	%Tot.USV Prod.Inc.All Agencies in Rel.to Tot. U.S. Domestic Prod. Still	Tot.Imp. Into U.S. Lbs.V2O5	Tot.V2O5 Available in U.S.Imports & Domestic	%Tot.USV Prod.Inc. all Agencies in Rel.to V2O5 Avail. in U.S.
	1,875,695			166,600 (E)	146,365	-		2,188,660	85.70%		1,854,000 (E)	4,042,660	[illegible]
	1,975,717			20,000 (G)	161,410	-		2,178,127(E)	91.62%		2,856,090 (E)	5,034,217	39.64%
	2,194,165	0		128,000 (E)	172,750	-		2,499,915(A)	87.77%		3,448,590 (E)	5,948,505	36.89%
	2,376,700	400,000(E)	0	141,600 (E)	175,000(J)	-	0	3,098,300(M)	76.71%		2,864,175 (E)	5,962,475	39.86%
0	3,736,880	439,500(J)	235,000 (J)	125,000 (J)	35,000(J)	85,000(J)	59,000(J)	4,715,380	74.44%	79.25%	3,244,200 (E)	7,959,580	46.95%
185,620(J)	4,420,418	752,000(J)	817,000 (J)	44,700 (J)	11,000(J)	20,000(J)	11,000(J)	6,076,118	54.34%	72.75%	2,749,000 (E)	8,825,118	50.09%
820,606(J)	3,940,770	786,000(J)	150,000 (J)	6,000 (J)	0 (J)	9,800(J)	11,010(J)	4,903,580	54.97%	80.36%	1,720,425 (E)	6,624,005	59.49%
916,095(J)	3,094,872	505,000(J)	730,000 (J)	0	74,000(J)	2,000(J)	0	4,405,872	41.15%	70.24%	2,078,925 (E)	6,484,797	47.72%
1,922,321	32,113,864	2,882,500	1,932,000	838,405	991,289	161,000+	81,010	39,011,068	72.51%	82.32%	30,078,185	69,089,253	46.48%

	21	22	23	24	25	26	27	28	29
	Electro-Met Domestic Sales Ferro-Vanadium Lbs.cont.V_2O_5	Electro-Met Canadian Sales Ferro-Van. Lbs. cont. V_2O_5	Total E-M Sales Ferro-Van. Domestic & Canadian Lbs.cont.V_2O_5	E-M Sales Ferro-Van.in Relation to Tot. Avail. V_2O_5 Inc. Imports	E-M Sales Fused Oxide in Lbs. cont V_2O_5	E-M Sales Red Cake in Lbs. cont. V_2O_5	Tot. E-M Sales Ferro-V, Red Cake&Fused Oxide in Lbs. cont. V_2O_5	%E-M Sales in Rel.to Tot. Dom.Prod.in Lbs. cont V_2O_5	%E-M Total Sales in Rel. to Tot. V_2O_5 Avail. in U.S. Inc. Imports
1927	331,028 (P)		331,028	9.65%	22,300		353,328	28.41%	10.31%
1928	984,994 (P)		984,994	69.94%	55,134		1,040,128	84.22%	73.85%
1929	690,444 (P)		690,444	17.85%	21,001		711,445	59.08%	18.39%
1930	296,716 (P)		296,716	11.89%	87		296,803	27.47%	11.90%
1931	317,420 (P)	1,672	319,092	18.49%	3,969		323,061	18.72%	18.72% (V)
1932	131,536 (P)	9,090	140,626	19.42%	0		140,626	19.41%	19.41% (V)
1933	544,460 (P)	27,614	572,074	10,623.47%	217,334		789,408	14659.38%	14659.38% (V)
1934	430,300 (P)	25,200	455,500	79.75%	788,138	12,045	1,255,683	7485.44%	219.84%
1935	430,638 (P)	18,900	449,538	231.72%	499,664	21,449	970,651	1427.43%	500.34%
1936	460,836 (P)	20,338	481,174	74.50%	366,431	11,691	859,302	459.90%	133.05%
1937	583,808 (P)	32,552	616,360	19.63%	551,565	37,105	1,205,030	82.84%	38.37%
1938	251,150 (P)	11,830	262,980	6.51%	152,436	20,251			

1938		0	1,875,695	1,875,695		0				1,875,695		
1939		0	1,995,717	1,995,717		1,000	(B)			1,995,717		
1940		0	2,194,185	2,194,185		5,000	(B)			2,194,185	0	
1941		0	2,376,700	2,376,700	0	5,000	(B)			2,376,700	400,000(B)	0
1942	Rifle Plant Reopened	1,285,417	2,224,831	3,510,248	186,632	40,000	(J)		0	3,736,880	439,500(J)	235,
1943		1,567,685	1,734,229	3,301,914	852,884	80,000	(J)	0	185,620(J)	4,420,418	752,000(J)	817,
1944	Uravan Plant Closed June	1,852,921	701,174	2,554,095	300,377	8,500	(J)	257,192	820,606(J)	3,940,770	786,000(J)	350,
1945		1,729,260	83,901 (A)	1,813,161	365,616	0		0	916,095(J)	3,094,872	505,000(J)	730,
	TOTALS	13,648,774	14,451,568	28,100,342	1,705,509	139,500		257,192	1,922,321	32,113,864	2,882,500	1,937,

(A) U. S. V. Durango Prod.

(B) Estimated Production - Plant Operated intermittent, during year (prior to Metals Reserve)

(C) Shattuck Chemical Co. prod. only 85% recovery

(D) Vitro Chemical Co. prod. calculated from 85% recovery of Utah production

(E) Mammoth-St. Anthony Prod. calculated at 70% recovery

(G) Mammoth-St. Anthony Mines closed May 15, 1937

(H) V.C.A. Naturita Mill operated full year in 1941 Prod. estimated from known prod. in 1942

(J) Known production

(K) United States Vanadium Corp. practically sole producer in United States

(L) All production in U. S. from Utah and Colorado sold through Howard Belsley

(M) Includes Gateway private production

(N) U.S.B.M. Import figures of V changed to V_2O_5

(P) Includes 2 for 1 conversion factor to change V to V_2O_5 used and corrected to 75% recovery

(R) Includes Export Sales in addition to Canadian

(S) Includes "Conversion" oxide

(T) Export Sales in addition to Domestic and Canadian

(U) Ores and Metals inventory December 31, 1945

(V) No imports into U. S. this year

21

Electr
Domest
Ferro-
Lie.co

1927	331,
1928	984,
1929	690,
1930	296,
1931	317,
1932	131,
1933	544,
1934	430,
1935	430,
1936	460,
1937	583,
1938	251,
1939	541,
1940	880,
1941	2,666,
1942	2,625,
1943	3,094,
1944	1,864,
1945	1,220,
TOTALS	18,347,

	1,875,695			166,600 (E)	140,365	"		2,180,660	85.70%		1,854,000 (E)	4,042,660	[illegible]
	1,975,717			20,000 (G)	161,410	"		2,178,127(H)	91.62%		2,856,090 (E)	5,034,217	39.64%
	2,194,165	0		128,000 (E)	172,750	"		2,499,915(A)	87.77%		3,448,590 (E)	5,948,505	38.89%
	2,376,700	400,000(H)	0	141,600 (E)	175,000(J)	"	0	3,098,300(H)	76.71%		2,864,175 (E)	5,962,475	39.86%
0	3,736,880	439,500(J)	235,000 (J)	125,000 (J)	35,000(J)	85,000(J)	59,000(J)	4,715,380	74.44%	79.25%	3,244,200 (E)	7,959,580	46.95%
185,620(J)	4,420,418	752,000(J)	817,000 (J)	44,700 (J)	11,000(J)	20,000(J)	11,000(J)	6,076,118	54.34%	72.75%	2,749,000 (E)	8,825,118	50.09%
820,606(J)	3,940,770	786,000(J)	150,000 (J)	6,000 (J)	0 (J)	9,800(J)	11,010(J)	4,903,580	54.97%	80.36%	1,720,425 (E)	6,624,005	59.49%
916,095(J)	3,094,872	505,000(J)	730,000 (J)	0	74,000(J)	2,000(J)	0	4,405,872	41.15%	70.24%	2,078,925 (E)	6,484,797	47.72%
1,922,321	32,113,864	2,882,500	1,932,000	838,405	991,289	161,000+	81,010	39,011,068	72.51%	82.32%	30,078,185	69,089,253	46.48%

	21	22	23	24	25	26	27	28	29
	Electro-Met Domestic Sales Ferro-Vanadium Lbs.cont.V_2O_5	Electro-Met Canadian Sales Ferro-Van. Lbs. cont. V_2O_5	Total E-M Sales Ferro-Van. Domestic & Canadian Lbs.cont.V_2O_5	E-M Sales Ferro-Van.in Relation to Tot. Avail. Inc. Imports V_2O_5	E-M Sales Fused Oxide in Lbs. cont V_2O_5	E-M Sales Red Cake in Lbs. cont V_2O_5	Tot. E-M Sales Ferro-V, Red Cake&Fused Oxide in Lbs. cont. V_2O_5	E-M Sales in Rel. to Tot. Dom. Prodtn in Lbs. cont V_2O_5	E-M Total Sales in Rel. Tot. V_2O_5 Avail. in U.S. Inc. Imports
1927	331,028 (P)		331,028	9.65%	22,300		353,328	28.41%	10.31%
1928	984,994 (P)		984,994	69.94%	55,134		1,040,128	84.22%	73.85%
1929	690,444 (P)		690,444	17.85%	21,001		711,445	59.08%	18.39%
1930	296,716 (P)		296,716	11.89%	87		296,803	27.47%	11.90%
1931	317,420 (P)	1,672	319,092	18.49%	3,969		323,061	18.72%	18.72% (V)
1932	131,536 (P)	9,090	140,626	19.42%	0		140,626	19.41%	19.41% (V)
1933	544,460 (P)	27,614	572,074	10,623.47%	217,334		789,408	14659.38%	14659.38% (V)
1934	430,300 (P)	25,200	455,500	79.15%	788,138	12,045	1,255,683	7485.44%	219.84%
1935	430,638 (P)	18,900	449,538	231.72%	499,664	21,449	970,651	1427.43%	500.34%
1936	460,836 (P)	20,338	481,174	74.50%	366,437	11,691	859,302	459.90%	133.05%
1937	583,808 (P)	32,552	616,360	19.63%	551,565	37,105	1,205,030	82.84%	38.37%
1938	251,150 (P)	11,830	262,980	6.51%	152,376	20,357	435,713	19.91%	10.78%
1939	541,088 (P)	15,914	557,002	11.06%	615,890 (S)	76,624	1,249,516(S)	57.37%	24.82%
1940	880,988 (P)	155,484	(R)1,036,472	17.42%	223,470 (S) 228,123 (S)	135,786	1,914,852(S)	76.60%	32.19%
1941	2,666,806 (P)	242,626	2,909,432	48.79%	187,843	48,074	3,145,349	101.52%	52.75%
1942	2,625,024 (P)	181,918	2,806,942	35.26%	277,088	32,675	3,116,705	66.10%	39.16%
1943	3,094,880 (P)	262,980	3,357,860	38.05%	195,413	7,898	3,561,171	58.61%	40.35%
1944	1,864,970 (P)	101,876	1,966,846	29.69%	118,589	29,738	2,115,173	43.14%	31.93%
1945	1,220,590 (P)	132,128	1,352,718	20.86%	84,871	37.309	1,474,898	33.47%	22.74%
TOTALS	18,347,676	1,240,122(P)	19,587,798 (P)	28.35%	4,900,292	470,751	24,958,841 1,040,655(U)	63.98%	36.12%

[fol 132]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 19

IN UNITED STATES DISTRICT COURT

Plaintiff's Exhibit No. 19

EXHIBIT A

SCHEDULE SHOWING NUMBER OF TOTAL REQUIREMENTS CONTRACTS FOR FERROVANADIUM AND VOLUME IN POUNDS OF CONTAINED VANADIUM SOLD AGAINST SUCH CONTRACTS FOR EACH YEAR FROM 1933 THROUGH 1949

Year	No. of Total Requirement Contracts For Ferrovanadium	Volume in Pounds of Ctd. V Sold Against Total Requirement Contracts For Ferrovanadium
1933	61	103,174.09
1934	67	154,398.80
1935	67	177,721.29
1936	96	336,798.16
1937	104	636,948.69
1938	126	190,797.79
1939	126	455,171.33
1940	143	791,287.44
1941	152	1,418,845.22
1942	103	2,233,613.18
1943	102	1,099,552.38
1944	99	910,074.60
1945	123	1,152,268.07
1946	119	537,264.75
1947	108	508,317.02
1948	110	660,898.20
1949	126	371,515.01

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[fol. 133]

UNION CARB.

INTERROGATORY NO. 28

The number of total requirement contracts under which sales of ferrovanadium or vanadium oxide were made for each of the years indicated below, together with the quantity sold thereunder, is as follows:

Ferrovanadium

Year	No. of Contracts	Pounds Contained Vanadium Delivered
1937	23	130,044
1938	36	55,118
1939	33	64,156
1940	48	150,569
1941	59	212,424
1942	36	522,159
1943	27	277,000
1944	40	203,450
1945	40	160,475
1946	28	153,373
1947	34	117,045
1948	29	121,000
1949 (7 mos.)	22	46,053

Vanadium Oxide

Year	No. of Contracts	Pounds Contained V2O5 Delivered
1937	3	37,536
1938	3	13,059
1939	3	73,224
1940	4	119,300
1941	4	71,102
1942	3	63,951
1943	3	43,104
1944	2	46,747
1945	3	67,414
1946	4	21,000
1947	2	50,873
1948	2	61,725
1949 (7 mos.)	0	None

[fol. 134]

[redacted]

PERCENTAGE OF EXCLUSIVE FERRO VANADIUM AND VANADIUM PENTOXIDE CONTRACTS TO TOTAL FERRO VANADIUM AND VANADIUM PENTOXIDE CONTRACTS

YEAR 1960

	Ferro Vanadium	Vanadium Pentoxide
No. exclusive contracts to Total contracts	91.88%	85.71%
Quantity sold on exclusive contracts to total quantity sold	97.98%	25.08%

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[fol. 135]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 21

IN UNITED STATES DISTRICT COURT

Plaintiffs' Exhibit No. 21

INTERROGATORY NO. 8 (a)

VANADIUM BEARING ORES MINED BY UNITED STATES VANADIUM CORPORATION FROM COMPANY OWNED AND LEASED CLAIMS 1933 to DEC. 31, 1947

	Tons
1933	None
1934	"
1935	"
1936	10,[illegible].[illegible]64
1937	[illegible].[illegible].291
1938	71,08[illegible].491
1939	[illegible].[illegible].230
1940	[illegible].[illegible].[illegible]20
1941	[illegible].[illegible].0.3
1942	119,10[illegible].[illegible]
1943	120,[illegible].344
1944	[illegible].[illegible].[illegible]70
1945	[illegible].[illegible].[illegible]22
1946	43,334.[illegible]67
1947	[illegible].[illegible].40[illegible]

135

[fol. 136]

INTERROGATORY NO. 8 (b)

VANADIUM-BEARING ORES PURCHASED BY UNITED STATES VANADIUM CORPORATION FROM INDEPENDENT PRODUCERS 1933 to DECEMBER 31, 1947

	Tons
1933	None
1934	"
1935	"
1936	"
1937	"
1938	476.200
1939	1,568.725
1940	21,265.847
1941	30,111.058
1942	6,896.633
1943	2,292.923
1944	7,104.924
1945	8,125.972
1946	719.380
1947	None

VANADIUM-BEARING ORES PURCHASED BY UNITED STATES VANADIUM CORPORATION, AS AGENT FOR METALS RESERVE COMPANY

	Tons
1942	17,819.009
1943	145,196.098
1944	15,202.373

[fol. 137]

[Handwritten notation—VCA]

EXHIBIT I

QUANTITATIVE YEARLY TOTALS OF VANADIUM-BEARING ORES MINED – 1933 – 1947

Year	Net Dry Tons
1933	None
1934	None
1935	1,382
1936	4,926
1937	12,498
1938	21,740
1939	34,243
1940	46,592
1941	63,615
1942	80,612
1943	94,210
1944	52,948
1945	63,949
1946	37,827
1947	63,336
TOTAL	577,878

NOTE: Includes 30,342 tons of ore sold to Metals Reserve Company during the years 1941 through 1944, which were repurchased by Vanadium Corporation of America in 1945 and reported as "purchased" in Exhibit II.

[fol. 138]

EXHIBIT II

QUANTITATIVE YEARLY TOTALS OF VANADIUM-BEARING ORES PURCHASED - 1933 - 1947

Year	Net Dry Tons
1933	None
1934	None
1935	None
1936	None
1937	None
1938	None
1939	None
1940	4,380
1941	10,280
1942	17,079
1943	6,946
1944	6,711
1945 -	- 37,265
1946	2,291
1947	7,750
TOTAL	92,702

NOTE: Includes 30,342 tons in 1945 purchased from Metals Reserve Company, which had been mined and sold by Vanadium Corporation of America during years 1941 through 1944 to Metals Reserve Company and reported as "mined" ore in Exhibit I.

[fol. 139]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 24

IN UNITED STATES DISTRICT COURT

Plaintiff's Exhibit No 24

INTERROGATORY 8(h)

Total quantity of vanadium-bearing ores, vanadium oxide and ferrovanadium purchased from Metals Reserve Company.

UNION CARBIDE AND CARBON CORPORATION
ORE AND METAL DIVISION

PURCHASES OF VANADIUM OXIDE (V_2O_5)

1943 — 859,832.76 lbs.

1944 — 59,520.75 lbs.

919403.81

UNITED STATES VANADIUM CORPORATION

PURCHASES OF VANADIUM-BEARING ORE

1945 — 3,523.186 dry tons.

[fol. 140]

EXHIBIT VII

QUANTITY OF VANADIUM-BEARING ORES PURCHASED FROM METALS RESERVE COMPANY

Year	Dry Tons
1945	30,342

QUANTITIES OF VANADIUM OXIDE PURCHASED FROM METALS RESERVE COMPANY

Year	Lbs. V_2O_5
1942	127,332.07
1943	854,107.15
1944	774,145.63
1945	101,383.61

QUANTITY OF FERROVANADIUM PURCHASED FROM METALS RESERVE COMPANY

Year	Lbs. V
1945	101,383.61

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[fol. 141]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 33

United States Vanadium Corp.

New York City

September 14, 1938

Outside Vanadium Ore Production

Mr. Blair Burwell
United States Vanadium Corp.
Uravan, Colorado

Dear Blair:

As I discussed with you the other night on the telephone, it has become very important that we find out accurately and definitely who is producing vanadium ore and where it is going. Along with this, we want to know the quality of the ore shipped so that we can get a line on the pounds of V_2O_5. I realize that some of the quality will have to be estimated, but we ought to get a very accurate line on what the shipments have been from southeastern Utah and southwestern Colorado. We may have to do something about this production, and if information could be obtained on what they get for this ore, it would help out. For instance—Harbison told me that he received 42¢ per pound for V_2O_5 and 60¢ per pound for U_3O_8 on a low-grade Polar Mesa ore, but if the V_2O_5 went over 7%, and the U_3O_8 over 2%, he received 45¢ per pound of V_2O_5 and 80¢ per pound for U_3O_8. These are pretty high prices for us, but it may be necessary to finally do something about it.

I have an idea that this production of ore which is going to Europe and Japan is quite a quantity of V_2O_5, and more than we think it is. I have been talking about this for some time here in New York, stating that the high prices maintained for V_2O_5 in Europe invite and stimulate this kind of competition and can eventually support a considerable vanadium business, with possibly later on a plant.

In this respect I have had some correspondence with King about the application made by Balsley and Kipe for a freight rate on vanadium ore to Castleton, N. Y. where it is claimed the ore will be reduced. We cannot get any line on this plan here, and at Castleton there is no plant now available for this kind of work.

I hope you will be able to put somebody on this and make a very careful canvass of the situation. If you could have a talk personally with Balsley you could probably find out all about it. In talking to Balsley it would be to his advantage to give you this information because I have an idea that he is not making any too much money out of this business, and it might be made easier for him on some kind of a combination with us if we decide to do something about it, rather than to fight it. We could, of course, run all this business out—but it would not be good policy to hint of this or threaten.

In this connection, I would like to have a line on the Shattuck Chemical Company production. They are selling fused oxide not only in this country, but in Europe. Their oxide is low-grade containing only a little over 50% V_2O_5, [fol. 142] but they are selling it for less money. I have an idea their production is about 25 tons of fused oxide a year, but you may be able to get a closer line on this. From the record, you will be able to gather on the shipments to Vitro, we can get a line on their production of V_2O_5.

I have a pretty good line on the production of vanadium in Mammoth, Arizona, as it is all sold through a friend of mine here in New York.

Will you please see what you can do about this for me.

Very truly yours,

J. R. Van Fleet/mm
IC

[fol. 143]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 34

[Handwritten notations—Vanadium Situations—Extra]

General Mining Department

New York City

September 19, 1938

Mr. F. P. Gormely
Room 1813
Building

Mr. J. D. Swain
Mr. W. H. Sneath

Competitive Vanadium Ore Production

Dear Mr. Gormely:

A preliminary investigation of the vanadium ore production in southeastern Utah and southwestern Colorado has been made. The investigation is being continued and will be made complete at a later date. Preliminary figures indicate that the V_2O_5 content of the ore which has been shipped already this year up to September 1st amounts to approximately 225,100 lbs. It is thought that for the balance of this year production will be at about the same rate, and the total ore production will amount to approximately 338,000 pounds contained V_2O_5.

The preliminary report does not give exports to Europe, but 7 cars containing 34,000 lbs. V_2O_5 have been shipped to Japan already this year. An approximate list of these shipments to September 1, 1938 follows:

Japan	7 cars	34,000 lbs.	V_2O_5
Vitro Mfg. Co.	29 "	125,500 "	"
Shattuck Chemical Co.	2 "	5,600 "	"
North Continent Mining Co. (Produced)		40,000 "	"
Miscellaneous		20,000 "	"
		225,100 "	"

The 7 cars of ore which were sent to Japan were produced from the Temple Mountain, Yellow Cat and Polar Mesa properties in southeastern Utah. A Japanese outfit started to build a mill at Temple Mountain to concentrate ore from the many dumps. They worked about 60 days, apparently ran out of money and left the property—leaving unpaid bills. The ore shipped from Yellow Cat and Polar Mesa was purchased from the operators of those properties.

The Vitro Manufacturing Company has purchased 29 cars containing 125,500 lbs. V_2O_5. This ore also contains better than 2% U_3O_8. The Vitro Manufacturing Company process this ore from the uranium and sell the vanadium residue in some convenient form, recently reported as being fused oxide. It is not known at present where this vanadium goes. About half of these 29 cars have been produced at Polar Mesa by Harbison and Kipe. They receive high prices for this ore, viz., 45¢ per pound of V_2O_5 and 80¢ per pound of U_3O_8 contained in the ore. Vitro pays the freight from Utah.

[fol. 144] *The Shattuck Chemical Company* of Denver has purchased 2 cars of rather low-grade ore containing 5,600 lbs. of V_2O_5. These 2 cars were specially selected uranium ore and contained higher uranium in proportion to V_2O_5 than most shipments.

The North Continent Mining Company has a small plant in the Paradox Valley and has produced about 40,000 lbs. of V_2O_5 so far this year. This production is sent to the Shattuck Chemical Company in Denver. This production of the North Continent Mining Company purchased by Shattuck rather checks previous information that Shattuck Chemical Company produces and markets between 50,000 and 75,000 lbs. of V_2O_5 yearly. They put this in the form of fused vanadium oxide with varying degrees of purity and containing from 51 to 75% V_2O_5.

There has been an estimated miscellaneous production of approximately 20,000 lbs. V_2O_5 from various sources.

If the production for the rest of 1938 is in proportion, the entire 1938 production will amount to approximately 338,000 lbs. contained V_2O_5 from these ore sources.

The Mammoth Mine in Arizona has an appreciable production of vanadium. Several years ago the Molybdenum Corporation of America built a mill at Mammoth with which to process ores extracted from the New Year and Mohawk properties. They entered into a contract with the owners of the Mammoth mine adjoining, to also treat ores from that mine. The treatment and recoveries were not satisfactory to Mammoth. Consequently, about January 1, 1938 Mammoth purchased the mill from the Molybdenum Corporation and took over the milling operation. Concentrates are made in this mill containing gold, lead, molybdenum and vanadium. The concentrates contain about 5% V_2O_5 and 7% MoO_3.

We have looked over this operation, obtained samples of concentrates and are able to check up fairly well the production. The present capacity of the Mammoth mill would yield approximately 100,000 lbs. V_2O_5 yearly, which checks closely with the 1937 production amounting to 90,000 lbs. V_2O_5 purchased by Associated Metals and Minerals Company.

The Mammoth mine is owned by Lloyd-Smith, owner of Time, Life and Fortune magazines, and it is incorporated under the name of Mammoth Saint Anthony Company. Foster Naething is the General Manager of this company and is a very competent mining engineer.

If we add this 100,000 lbs. V_2O_5 to the competitive ore production listed above, the total competitive production for 1938 will be approximately 438,000 lbs. V_2O_5. There are many attractive occurrences of carnotite ore in the Southwest, and the production could easily be twice as much—given adequate financing and management.

[fol. 145] One potential producer of V_2O_5 is the *Anaconda Copper Company*. In Idaho they produce phosphate rock, moving it to Anaconda, Montana for processing into fertilizer and phosphoric acid. The plant for this purpose at Anaconda is in connection with the smelter where they obtain cheap acid. This phosphate rock all contains a small amount of vanadium, and a process has been developed for recovering the vanadium from the phosphoric acid solution.

They expected to be producing vanadium this year, after installing equipment costing about $200,000, but they did not feel inclined to proceed with this expenditure this year. I imagine when business is better they will begin producing fused oxide. It is estimated that this plant will produce approximately 100,000 lbs. V_2O_5 yearly, and we have agreed to purchase the output.

The International Vanadium Corporation has taken over the lead vanadate property at Dripping Springs, Arizona. It is now being managed by one de Villiers, who was for a time employed at Rhodesian Broken Hills. The company is now well financed and the plan is to produce lead vanadate concentrates containing 17% V_2O_5. de Villiers claims that he can do this for 19c per pound of V_2O_5, producing 4 tons of concentrates per day. This production, if carried through, would amount to approximately 40,000 lbs. V_2O_5 monthly, or 480,000 lbs. yearly. They expect to be in production in about 3 months.

I have recently made two visits to Dripping Springs and one of our field engineers has sampled the Dripping Springs mine. We have paid particular attention to this operation from its inception several years ago. We could never check the quality or quantity of ore claimed. The last sampling, which was very comprehensive, confirmed our previous impression, and we cannot see how a profitable operation can be maintained at this place. The ore is entirely too low-grade—containing approximately .20% V_2O_5, with a small tonnage. There will be however, some concentrates made at this place, as in the past, but we anticipate that after a few months this operation will have to close.

For the last two years we have been making a comprehensive investigation of all vanadium resources in the Southwest, which we expect to finish this season. Several attempts have been made to erect small roasters, mills and other equipment for processing these ores on a small scale. So far all of these attempts have met with failure. There is a new one going in now at *Gateway* and is being managed by Harry Brown, who up until about 9 months ago was employed by us at Uravan as a draftsman. It is reported that Harry Brown is being backed by his father and has

raised $20,000 with which to install a 20 ton plant which will be designed to produce fused oxide. He intends to make the roaster from original designs, and it is evident additional funds will be necessary. The ore will be obtained from Polar Mesa and from the deposits on the other side of the Dolores River in the vicinity of Gateway. There are a number of small, high-grade deposits in this locality.

[fol. 146] Probably the best of the outside resources are in southeastern Utah around Blanding and in Dry Valley. Last year, as a result of our investigations, we considered that we should purchase additional property in that locality, and $200,000 was put into the original 1938 Budget to cover these purchases. Due to poor business conditions however, it was not thought desirable to pursue recommendations for this purpose. We will renew this request in the 1939 Budget.

We have already purchased two or three groups of claims which were potential producers and could be the nucleus of an operation. The intensive development during the past year has made it more imperative to continue this policy, and it now appears that we should purchase some properties and possibly install a small plant in southeastern Utah to forestall serious competition. A definite recommendation will be made on this as soon as the field work has been finished.

Very truly yours,

J. R. Van Fleet/mm
IC

[fol. 147]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 36

[Handwritten notations—V/P—Custom Ore]

United States Vanadium Corp.

New York, N. Y.

December 24, 1941

Mr. J. E. Weston
United States Vanadium Corporation
Uravan, Colorado

Mr. Blair Burwell
Mr. A. H. Coleman

AIR MAIL

Dear Joe:

Yesterday Mr. Kett of the Vanadium Corporation of America called up to protest against some attempt on our part to take a customer away.

The story is that you went to one Lyen, operating in the Cedar district, offering him $2.00 per ton above the established rate, which he in turn reported to the Vanadium Corporation of America. Knowing nothing of the circumstances surrounding the case, or of Lyen either, I advised Mr. Kett that I would look into the matter.

Will you kindly give me the details of this case.

With kind regards, and with best wishes to yourself and Mrs. Weston for a Happy and Prosperous New Year, I am

Yours very truly,

AF/W. G. Haldane
IC

[fol. 148]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 37

[Western Union Form]

[Handwritten notations—Mrs. Teddy—1944—EMT—Also Durango Plant Purchase—Also N. Continental-Winters.]

WUG208 38=GRAND JUNCTION COLO FEB 29 1111A
W G HALDANE=

BROCK ADVISES THAT BRINKER WITH SITTON AND OTHER PROMOTERS ARE REPORTED TO BE PLANNING TO TAKE THE DURANGO PLANT IN CASE WE DO NOT RECAPTURE IT STOP THIS IS RUMOR ONLY BUT SUGGEST YOU ADVISE MR RAFFERTY REGARDS=

BLAIR BURWELL.148P

[fol. 149]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 40

[Letterhead of Continental Ore Company,
New York 18, N. Y.]

November 16, 1943

The Vanadium Corporation of America
Graybar Building
420 Lexington Avenue
New York, N. Y.

Attention: Mr. G. Laub

Gentlemen:

Re: Vanadium Pentoxide

We would appreciate your offering us:

10,000 to 15,000 lbs. of V_2O_5 contained in vanadic acid, per month.

We would be ready to sign a contract with you for a fixed length of time.

Very truly yours,

CONTINENTAL ORE COMPANY

/s/ HENRY J. LEIR
Henry J. Leir

hjl/hc

[Stamp—Received—Nov 17 1943—G. L.]

[fol. 150]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 41

[Letterhead of Vanadium Corporation of America,
New York 17, New York]

November 19, 1943

Continental Ore Company
500 Fifth Avenue
New York 18, New York

Attention: Mr. Henry J. Leir

Gentlemen:

RE: VANADIUM PENTOXIDE

In response to your inquiry of November 16th requesting quotation on 10,000 to 15,000 pounds monthly of V_2O_5 contained in Vanadic Acid, we regret very much that due to our present commitments we are not in position to take on this additional tonnage at the present time.

Perhaps if you are still interested at a later date and our situation changes, we will be glad to look into the matter further at that time.

Regretting our inability to be of service to you at this time, we are

Very truly yours,

/s/ GUSTAV LAUB
Assistant Vice President

GL:HK

[fol. 151]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 42

November 30, 1943

Electro Metallurgical Sales Corp.
30 East 42nd Street
New York, N. Y.

Attention: Mr. T. F. O'Heir

Gentlemen:

Re: Vanadium Pentoxide

We have not as yet received a reply from you to our letter of November 17, of which we enclose a copy since the original may have gone astray.

We would very much appreciate hearing from you regarding this matter at your earliest convenience.

Very truly yours,

CONTINENTAL ORE COMPANY

Henry J. Leir

hjl/hc
Enc.

[fol. 152]

COPY

November 17, 1943

Electro Metallurgical Sales Corp.
30 East 42nd Street
New York, N. Y.

Attention: Mr. T. F. O'Heir

Gentlemen:

Re: Vanadium Pentoxide

We would appreciate your offering us:

10,000 to 15,000 lbs. of V_2O_5 contained in fused vanadic acid, per month.

We would be ready to sign a contract with you for a fixed length of time.

Very truly yours,

CONTINENTAL ORE COMPANY

Henry J. Leir

hjl/sk

[fol. 153]
[Letterhead of Electro Metallurgical Sales Corporation, New York 17, N. Y.]

November 30, 1943

Continental Ore Company
500 Fifth Avenue
New York 18, New York

Attention: Mr. Henry J. Leir

Gentlemen:

Referring to your inquiry for fused vanadium oxide, in view of the many uncertainties prevailing at the present time we do not feel that we should undertake supplying your regular requirements for this material.

Very truly yours,

ELECTRO METALLURGICAL SALES CORPORATION

By: /s/ W. E. REMMERS

W.E.Remmers:JC

[fol. 154]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 43

[Handwritten notation—Illegible]

The Secretary submitted Appropriation Request No. SMP-3, dated July 6, 1939, in the amount of $7,000. to cover the estimated cost of Air Separator Table Installation at the Piney River plant of the Southern Mineral Products Corporation. After discussion, on motion regularly moved, seconded and carried, it was unanimously

> RESOLVED, that Request for Appropriation No. SMP-3, in the amount of $7,000. covering the estimated cost of Air Separator Table Installation at the Piney River, Va. plant of the Southern Mineral Products Corporation, be and is hereby approved, as recommended by the President.

The President advised that certain claims of the Vanadium Corporation of America located in Colorado were adjacent to claims of the United States Vanadium Corporation and that in view of the present mining operations of the United States Vanadium Corporation, said corporation is willing to mine and mill the ore on one particular claim, namely, the "Maggie C", or any other claim or claims that might later be agreed upon, delivering the product therefrom (oxide containing a minimum V_2O_5 content of 85%) to our Bridgeville, Pa. plant at a delivered price to be accepted if satisfactory to the Vanadium Corporation of America. He requested authority to enter into an agreement that would provide for the delivery of such ore at an agreed upon price. After a general discussion, on motion regularly moved, seconded and unanimously carried, the President was authorized to enter into an agreement, as outlined above, with the United States Vanadium Corporation.

After a general discussion of the affairs of the Corporation and business conditions, on motion regularly moved, seconded and carried, the meeting thereupon adjourned.

[Signature illegible]
Secretary

[fol. 155]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 57

VANADIUM BEARING RAW MATERIAL

Following are the figures covering exports of contained vanadium in ore for the years 1935-1939 inclusive.

PERUVIAN ORE

Year		High Grade Mix	Low Grade Ore	Total
1935	Lbs. "V"	163,551		163,551
1936	"	424,947		424,947
1937	"	590,823	635,667	1,226,490
1938	"	926,930	838,096	1,765,026
1939	"	963,547	1,309,504	2,273,051
Totals		3,069,798	2,783,267	5,853,065

The low grade ore is shipped as taken from the ground. The shipments in 1937 consisted of mined Veta Madre ore and averaged approximately 6.5% vanadium and the cost delivered at Bridgeville was $.39 per lb. contained vanadium.

Shipments made in 1938 and 1939 consisted of Oxide ore from the dumps at Mina Ragra and averaged around 5% in vanadium and the cost delivered at Bridgeville was $.445 per lb. contained vanadium in ore.

The high grade mix consists of a mixture of precipitates and tailings or low grade oxide ore or of all three. In 1935 and 1936 all shipping mixture consisted of a mix of precipitates and tailings. In 1937 and 1938 the mixture was precipitates, tailings and oxide ore. In 1939 the mixture was precipitates and low grade oxide ore. The preparation of each in the mix is one part of precipitates to two parts of either tailings or low grade ore by weight. As an example—

1 part precipitates	37%	37
2 parts ore or tailings	3%	6
3 parts		43
Average of mix		14.3%

Over the five-year period the cost of delivering this material to Bridgeville was $.59 per lb. vanadium contained. In the years 1936 to 1937 inclusive, when practically all the material used for mixing was tailings, the average cost was approximately $.58 per lb. vanadium contained in mix, delivered Bridgeville. In 1938 the mixture contained both tailings and oxide ore, low grade, and was delivered to Bridgeville at a cost of approximately $.615 per lb. contained vanadium in mixture. In 1939 the mix consisted of precipitates and oxide ore, low grade only, and the delivered price was the same as in 1938, i.e. $.615 per lb. contained vanadium in mix. Inasmuch as the oxide ore was taken from stock piles and not mined, when it is found necessary to mine oxide ore from the mine the cost will increase approximately $.05 to $.06 per lb. of contained vanadium delivered Bridgeville.

[fol. 156] PURCHASED V^2O^5

During the period from 1932 to 1939 the following purchases of pentoxide were made:

1932	3,956 lbs.	V^2O^5
1933	216,412 "	"
1934	483,202 "	"
1935	495,428 "	"
1936	360,401 "	"
1937	540,785 "	"
1938	147,552 "	"
1939	577,849 "	"
	2,825,585 "	"

The above purchased material was consumed as follows:

	1932-1934	1935	1936	1937	1938	1939
Ferro-vanadium	398,366	472,395	410,288	540,784	70,319	560,527
Pentoxide						
Air Dried		35,084				
Grainal						7,793
Sales-Domestic		59,401	600			
Sales-Export		96,121	86,350			45,294
Miscellaneous		127	669		2,164	141
Totals	398,366	663,128	497,907	540,784	72,483	613,755
						2,786,423
				Inv. 12/31/40		39,162
						2,825,585

Purchases from 1932 to 1936 were made to meet our demands for product which could not be filled from our Peruvian mine due to proving out a leaching process on our pilot plant there and the necessary time required to transfer the results from the 15-ton pilot plant to the 50-ton commercial plant and bring the 50-ton plant to commercial operating basis.

In 1937 and 1939 purchases were made to meet our commitments which were beyond our operating capacity at Bridgeville.

From 1932 to 1938 inclusive, purchases were on a straight purchase order basis at a price of $.80 per lb. V_2O_5 contained, delivered Bridgeville. From June 30, 1939, deliveries were made under agreement for a delivery of ore by Vanadium Corporation of America to United States Vanadium as per contract, and an additional processing charge of $.65 per lb. V_2O_5 contained, delivered Bridgeville. This price was increased to $.75 for 1940 deliveries.

P.J.G.
4/4/40

[fol. 157]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 59-A

—2—

The Colorado Plateau was the only area in the United States actually producing uranium. Production came from low-grade carnotite ore mined primarily for vanadium, with uranium recovered as by-product. During the war the Manhattan District financed the construction and operation of two plants for the extraction of uranium from tailings of Colorado vanadium plants and also purchased uranium concentrates produced as a by-product from the vanadium operations. Following the war it was tentatively decided by the Manhattan District to purchase only by-product uranium rather than to stimulate and support increased production by special incentives. "This position was based on the fact that the known uranium reserves of the Colorado Plateau were limited and expensive to mine and process and that the only advantage of an accelerated program would be to make this limited supply available sooner. Since the estimated annual production of the Colorado Plateau, even under an accelerated program, would be small in relation to total U. S. requirements and to supplies available from foreign sources, it appeared more economical to obtain the uranium as a by-product from vanadium operations which were geared to the vanadium market. The quantity of vanadium produced is much greater than the quantity of uranium recovered from these operations.

(more)

[Handwritten notation—A marginal brace taking in lines 9 to 22 of the first paragraph and the initials BB have been drawn on this exhibit]

[fol. 158]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 62

SPECIAL REPORT
GUSTAV LAUB

February 20, 1942

APEX SMELTING COMPANY
Chicago, Illinois

Mr. Edward S. Christiansen—Vice Pres.

Mr. Christiansen, Vice President of the above company, whom I have known slightly for sometime, called on me stating that they have decided to go out of the Vanadium business and that they had certain equipment and some small stock of Oxide on hand that they would like to dispose of if we were interested.

He did not have an actual list of the equipment nor of the raw materials they have on hand but from the figures he had it looked as though they have close to 50,000 pounds of Vanadium Pentoxide containing between 78/87% V_2O_5 and about 40,000 to 50,000 pounds of Magnesite.

I told him that we might be interested in the Vanadium Oxide and possibly the Magnesite and some of the equipment which included jaw crushers and miscellaneous equipment. He promised to obtain from their Chicago office an actual complete list of the equipment they have to offer as well as the quantities and grades of Vanadium Oxide and Magnesite and to deliver these to me the early part of next week. I told him that I would then refer this to the proper parties of our company and that we would probably be interested in the Vanadium Oxide and the Magnesite if their prices were right. He stated that they would be reasonable in their prices and did not expect to make a profit.

Mr. Christiansen further stated that they had been contemplating going out of the Vanadium business for sometime and their definite decision was reached for two rea-

sons. First, that they had a fire in this department of their plant and secondly, that the sales contract which they had with Mr. Leir, President of the Continental Ore Corporation had not worked out very well. Mr. Leir was getting a fifty percent cut on the profits. Mr. Christiansen also stated that they had some agreements with the Shattuck Chemical Company and Niley & Smith for deliveries of Vanadium Oxide and that he would also look into this and advise us of the status thereof.

GL:ESW

[fol. 159]

VANADIUM CORPORATION OF AMERICA

INTER-OFFICE COMMUNICATION

Boulder, Colorado
DATE April 22, 1942.

FROM Robert Sterling, Manager

TO Mr. Frederick F. Kett,
Gen'l Manager Mining Division, N. Y.

SUBJECT Your Letter of April 20th.

Kimmerle Report — — As long as this matter has come up in the way it has, I think Kimmerly should be put on the spot to prove his statements. Such things do go on, whether at our plants or not, and it generally involves collusion between someone in the plant and some outsider. It would really go hard with them, if anything could be proved. However, all that can be left until you come out.

Sale of Ore to Balsley — There was some doubt in my mind about selling small lots to Balsley except on a cash-on-the-barrel-head basis. Even then, no matter what he promised, I think there would be interminable delay in getting the cash—as, always, in the past. I assume that if any high grade comes into Monti-

cello, it should be held and eventually transferred to Naturita for shipment from there with any carload of slimes that may be accumulated? In fact any high grade produced at the Yellow Bird may as well go direct to Naturita, and so save transferring it later on? They might run into another "Tree" at any time.

Dry Valley Claims — — I have no doubt that the matter of the whereabouts of all the claims in Dry Valley will be cleared up in the course of time, and that there is really nothing to worry about, except to see that the Affidavits of Annual Assessment Work are filed. That is, of course, up to the Moly Corporation, or U.S.V. and can, as you say, be checked up at the Monticello (not Moab) court house. The claims are all in San Juan County.

Ore Prices — — — — Your decision on that matter is definite, so no price changes will be conceded without first getting authority from you. It's rather hard to know how to decide, when the producers tell us these stories about U.S.V. offering more, and then U. S. V. denying it. It is difficult to learn who is lying. Personally, I am inclined to believe the "honest miner."

Property Deals — — — It is my intention, of course, to advise and consult with you on any property deals. It seems to me the present arrangement should save you a lot of grief and letter writing, as I imagine you have plenty to do without being bothered with something that can be handled perfectly well out here with out troubling you.

[fol. 160] That $100.00 was paid on an option on the so-called Hyde claims belonging to Mrs. Hyde and two of her nephews, and which we have been trying to line up ever since last fall. These claims join the Happy Jack, the workings of which are getting pretty close to them. The $100.00 was for 90 day option then $1,000 down, then $500.00 in 90 days, and the balance on a 10% royalty—total price $6,000.00. I have asked Garard for copies of the option.

I have just received from Blitz, copies of the contract he has negotiated with the Waggoners on 15 claims on Carpenter mesa. You have a copy of his letter of April 20th, on the subject. In case he did not send you a copy of the contract, one is enclosed herewith. I shall sign and return them today.

Blitz is very sure there is $3,000.00 worth of positive ore and that we are more than safe in buying them on the terms set out in the contract.

Apex Smelting Co. — — It is nice to know that we won't have to worry about them after July 1st.

Norwood Bridge — — As you know, the needed steel is to be rolled this month. However, there isn't a chance of the bridge being in place before the high water comes and goes; so we shall just have to pray for the best. The Highway Department seems to be prepared to replace the old one, if necessary.

Moab Bridge — — — Garard went to Salt Lake and got the Highway Department there to allow a 20-ton load over this bridge. As most of the heavier stuff has already passed over, the 20-ton load should see us through, until the bridge is strengthened. One would think they could get the necessary priority for the needed steel.

Navajo Indian Reservation I agree with you, as I said in my letter of April 17th, that there would be no need of tying up more ground on the reservation, until we have found something worth getting. I think then, we could get anything within reason. Garard has established a camp at Tec-nes-pah, having in some way secured the CCC Camp for nothing, and has three or four men prospecting.

/s/ Robt. Sterling

[fol. 161]

[Handwritten notation—Cont'l Ore Corp.]

VANADIUM CORPORATION OF AMERICA

INTER-OFFICE COMMUNICATION

DATE March 14, 1942

FROM Gustav Laub

TO Mr. E. D. Bransome, President

SUBJECT APEX SMELTING COMPANY
Chicago, Illinois

Inasmuch as the following information has been conveyed verbally this memorandum therefore is for our records.

With reference to the writer's memorandum of February 20th advising that Mr. Christiansen, Vice President of the above company, had informed us that they were going out of the Vanadium business and had offered us their stocks of Vanadium raw materials, equipment, etc. as I had not heard further from Mr. Christiansen in this regard I had Larry Johnson casually contact him by phone and tell him that I had not received the information that he promised to send.

As a result, Mr. Christiansen phoned the writer and stated that in going into the matter further they had run into some legal difficulties. Mr. Leir, President of the Continental Ore Corporation, with whom Apex has an agreement to furnish their entire production of Vanadium, he acting as sales agent, objected strenuously to their breaching their contract and upon referring the matter to their counsel Apex were advised that Mr. Leir had a strong case against them and to make the most satisfactory arrangement with Mr. Leir that they could.

This resulted, Mr. Christiansen advised, in Mr. Leir putting a proposition up to them in that they would produce Vanadium at full capacity for a period of three months

after which time he would take over their equipment and raw materials contracts and produce the material himself.

Mr. Christiansen therefore advised that they felt they would be obligated to produce at maximum capacity for a period of three months and had decided to proceed on this basis but that they had not come to a definite conclusion about turning over the equipment and raw materials contracts after that time. The contract with Mr. Leir, he said, extended over the balance of the calendar year.

In event that the second part of Mr. Leir's proposition does not go through Mr. Christiansen stated that they still proposed to offer us such raw materials as they have available as well as plant equipment.

The above information, at your suggestion, was conveyed by phone to Mr. E. K. Jenekes, Assistant Chief, Vanadium Branch, War Production Board.

GL:ESW

[fol. 162]

SPECIAL REPORT
GUSTAV LAUB April 14, 1942

APEX SMELTING COMPANY
Chicago, Illinois

Mr. Edward S. Christiansen—Vice President

With reference to the writer's previous report of February 20th, Mr. Christiansen of the above company called again yesterday stating that they had now gotten their Vanadium situation straightened out and that they had definitely concluded to dismantle their Vanadium plant at once and go out of the Vanadium business permanently. The equipment from their plant is now for sale. He doubted whether there would be much of the equipment that might interest us but said that the list of same would be sent to us promptly.

Mr. Christiansen stated that they had finally been able to come to an agreement with Mr. Leir of the Continental Ore Corporation, with whom they had a 14 year contract, to cancel the same. By doing so it was necessary for them, he said, to produce only enough Ferro Vanadium to complete two open orders which Mr. Leir had on his books and to continue producing Vanex (a mixture of Oxide and Aluminum which they have been supplying) up through June after which time they would be completely out of the Vanadium picture. Mr. Christiansen further stated that their contract and dealings with Mr. Leir had not proven at all satisfactory to them and that they regretted ever having gone into the business.

He further stated that he would furnish us with the names of all of their suppliers of Ores and Oxide; the principal ones apparently being Shattuck Chemical Company, and Nisley & Wilson. He appeared to be most anxious that we obtain these raw materials rather than the possibility of Mr. Leir's getting them and continuing in the Vanadium business.

We had an interesting discussion concerning low copper grained aluminum which they produce and release with necessary priority approval and I therefore turned him over to our Purchasing Department with regard to this item.

EWC

G. L.

[fol. 163]

In United States District Court

Plaintiffs' Exhibit No. 63

March 11, 1940

Vanadium Corporation of America
490 Lexington Avenue
New York, N. Y.

Gentlemen:

Please be good enough to let us have your very best price on quantity lots of Vanadium Pentoxide crushed to ¼" and under. We desire this material for domestic consumption.

Your immediate response will be very much appreciated.

Very truly yours,
APEX SMELTING CO.

L. Lippa

LL:JB
Airmail

[fol. 164]

April 8, 1940

Vanadium Corporation of America,
490 Lexington Avenue,
New York, N. Y.

Gentlemen:

We enclose copy of letter written to you on March 11, to which we do not seem to have received a reply.

This, no doubt, has been overlooked and we would appreciate hearing from you.

Very truly yours,
APEX SMELTING CO.

L. Lippa.

Encl.
LL/r

[fol. 165]

[Letterhead of Vanadium Corporation of America, New York, N. Y.]

April 20th 1940

[Stamp—Received—Apr 23 '40—1:30 PM—Apex Smelting Co.]

Apex Smelting Co.
2537 W. Taylor Street
Chicago, Illinois

Attention: Mr. L. Lippa

Gentlemen:—

In response to your letter of April 8th enclosing copy of your letter of March 11th, which apparently went astray, would advise that our position is such that we have no material to offer you at present.

Yours very truly,

/s/ Gustav Laub
Assistant Vice President

GL:IL

[fol. 166]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 75

[Western Union Form]

(25).
1944 JAN 13 PM 10 46

VB468 NL=GRAND JUNCTION COLO 13
CONTINENTAL ORE CO=
500 FIFTH AVE NYK=

WE CANNOT PURCHASE ORE 32 CENTS VANADIUM CONTAINED AND SELL FOR 110. AM SENDING COPY OF TELEGRAM TO HATCH. QUOTE REURTEL. YOU STATE 52 CENTS IS CONTENT BASIS AND TRANSFER COST IS 20 CENTS. GRANTED. BUT WHEN ORE IS MILLED A PERCENTAGE OF VALUES ARE LOST IN TAILINGS. ADD THE COST OF THESE VALUES TO 20 CENTS AND WE STILL WISH TO KNOW DIFFERENCE BETWEEN IT AND OUR OFFER OF 26 CENTS. COST OF 32 CENTS CONTENT BASIS MAKES OUR RECOVERED VANADIUM COST 46 CENTS PER POUND WHICH WE CANNOT STAND. DURANGO WOULD HAVE A SIMILAR LOSS AND A RAISE IN COSTS THEREFROM WHETHER [fol. 167] FIGURED AS ADDITIONAL ORE COST AS WE DO OR ADDITIONAL MILLING COST AS YOU ARE APPARENTLY DOING. CONCERNING TAILINGS ARMY HAS PLANT URAVAN RECOVERING VALUES TAILINGS MUCH CLOSER TO GATEWAY. WE HAVE TRIED TO GET RID OF 1500 TONS OUR OLD TAILINGS CARRYING HIGHER VANADIUM URANIUM CONTENTS THAN MRC OR URAVANS. WE CANNOT SELL THEM SO FAR AT EVEN ONE DOLLAR PER TON. WE QUESTION VALUE OF TAILINGS AT PRESENT UNDER SUCH CIRCUMSTANCES WE KNOW EXIST. WE SEE NO CURTAILMENT PROGRAM TAKING PLACE OTHER THAN SHUTTING DOWN OUR PLANT WITH A NEW MRC OPERATION AT RIFLE, CONTINUED OPERATION ALL

OTHER MRC PLANTS. CONTINUATION OF ORE PURCHASES AND ORE CONTRACTS. IT SEEMS TO [fol. 168] US DEFINITELY AND CLEARLY USV AS AGENTS ARE USING WPB CONTROL TO COMPLETELY MONOPOLIZE THE VANADIUM INDUSTRY. AS AGENTS THEY HAVE OUR ORE SUPPLY UNDER CONTRACT; AS AGENTS THEY KNOW OUR PRESENT OPERATING COSTS AND KNOW WE CANNOT OPERATE AT AN ORE COST OF 46 CENTS; AS AGENTS USV USED CURTAILMENT PROGRAM TO STOP OUR OPERATION AHEAD OF ANY OTHER PLANTS INCLUDING MRC PLANTS. WE RECEIVED NO DIRECTIVE FROM EITHER WPB OR MRC. WE WERE FORCED OUT OF PRIVATE PRODUCTION INTO MRC PROGRAM IF WE WISHED TO CONTINUE BUSINESS, THE THEORY BEING THAT THE MRC PROGRAM WAS NECESSARY FOR THE WAR EFFORT. NOW THE AGENTS ARE CONTINUING THEIR PROGRAM OF COMPLETELY MONOPOLIZING THE INDUSTRY WITH THE AID OF THE WPB AND MRC REGULATIONS. IF THIS IS NOT THE [fol. 169] CASE WHY SHOULD WE BE THE FIRST AND ONLY PLANT TO BE SHUT DOWN, WHY SHOULD WE BE THE ONLY PLANT PENALIZED BY THE MRC AND WPB PROGRAM. IF THERE IS NO FURTHER JUSTIFICATION FOR PRODUCING VANADIUM IN EXCESS OF REQUIREMENTS WHY ARE NOT GOVERNMENT PLANTS CLOSED FIRST INSTEAD OF PRIVATE OWNED PLANTS AND ESPECIALLY WHY ISNT THE PURCHASE OF ORE STOPPED. WE REALIZE THAT WE ARE SMALL PRODUCERS NOT APPRECIABLY AFFECTING VANADIUM PRODUCTION AS A WHOLE YET OUR LITTLE BUSINESS IS GOING PART OF THE AMERICA WE ARE FIGHTING FOR. IF THE USV IS GOING [fol. 170] TO TAKE ADVANTAGE OF THESE WAR CONDITIONS TOGETHER WITH MRC AND WPB AID TO COMPLETELY MONOPOLIZE THE INDUSTRY AND FORCE ALL OTHERS TO DISCONTINUE BUSINESS IT MAKES US WONDER JUST WHAT OUR BOYS ARE FIGHTING FOR=

NISLEY AND WILSON VANADIUM MILL.

[fol. 171]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 76

NISLEY & WILSON VANADIUM MILL

GATEWAY, COLORADO

January 31, 1944

Mr Henry J Leir
Continental Ore Company
New York, New York.

Dear Mr Leir:

As you know, Mr Gardner, Mr Wilson and myself are owners and operators of the Gateway plant. Mr Gardner has the old plant, and Mr Wilson and myself have added considerable new equipment and have been operating under a contract with Mr Gardner.

Since the curtailment of Vanadium production and the lessing need for it, I have been called to the service. This will affect our contract with Mr Gardner. Since the plant cannot be operated at the present time, and it doesn't look as if it could for quite sometime, we are going to have to sell either our interest in the plant, or dismantle it. Since I must leave shortly, we are going to have to act quickly.

We are all very sorry to have to discontinue, but we see no other way out at present. Mr Gardner has taken an active interest in the operation and has helped us in getting our problems straightened out. The local M.R.C. told us that the mill had made a very good extraction, in fact better than some of the others under the M.R.C. The cake was of good quality. We had a very satisfactory operation during December, especially.

The big mill at Uravan was closed down last Sat night and they are letting a number of their men go. Their other

plants are still operating full blast however. We do not believe that they will ever let the price of the crude ore adjust wo where we could operate at $1.10 again, at least for quite some time.

Concerning our bill with you, we will get things straightened out shortly and send you a check. We would like to have you also include the amount we owe you for this year so it can all be straightened out at once.

We want you to know we sincerely appreciate ail you have done for us in the past. We have never had business dealings with anyone who has treated us any finer than you and we really do appreciate your cooperation and help. We sincerely wish we could continue to do business with you.

Sincerely yours,

/s/ Frank Nisley Jr.

[fol. 172]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 77

June 14, 1941

Mr. C. G. Roser
Electro Metallurgical Company
30 East 42nd Street
New York City

Dear Mr. Roser:

RE: VANADIC ACID

Please let us have your offer of the above material for shipment to the Apex Smelting Company, of Chicago.

Yours very truly,

CONTINENTAL ORE CORPORATION

President

Henry J. Leir/re

[fol. 173] June 16, 1941

Electro Metallurgical Company
30 East 42nd Street
New York City

Attention: Mr. F. P. Gormely, General Manager

Gentlemen:

As you know, the Apex Smelting Company of Chicago has been in the aluminum smelting business for more than 20 years.

Last year they entered into the production of certain ferro alloys by the alumino-thermic process, and have created good facilities for this particular manufacture which, if necessary, could be easily enlarged.

Would you be interested in "farming out" a certain quantity of vanadic acid, and allow us to convert it for your account into low carbon ferro vanadium?

We shall be awaiting the pleasure of your reply to the above suggestion, and hold ourselves at your disposal for any personal discussion you might like to have on this subject.

Yours very truly,

CONTINENTAL ORE CORPORATION

President

Henry J. Leir/re

[fol. 174]

[Letterhead of Electro Metallurgical Company, New York, New York]

July 31, 1941

Mr. Henry J. Leir, President
Continental Ore Corporation
500 Fifth Avenue
New York City, N. Y.

Dear Sir:

Please pardon the delay in replying to your letter of June 16 asking if we would be interested in having you convert a certain quantity of vanadic acid for our account into low carbon ferro vanadium.

I have reviewed this matter several times with my associates and find that we are at the moment able to smelt all the vanadic acid which we have available. Should this situation change we will be glad to get in touch with you but see no prospects at the moment that we would be interested in your proposal.

Very truly yours,

ELECTRO METALLURGICAL COMPANY

/s/ F. P. GORMELY
Vice-President and General Manager

FPGormely:O

[fol. 175]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 78

VANADIUM CORPORATION OF AMERICA

INTER-OFFICE COMMUNICATION

DATE Feb. 14, 1947

FROM P. J. Gibbons,
Executive Vice President

TO Mr. J. B. Girdler, Asst. Gen. Mgr. of Sales

SUBJECT Continental Ore Co. Inquiry

With reference to letter from the Continental Ore Co. dated Feb. 11, 1947, in which they advise they would be interested in one minimum carload per month of vanadium pentoxide for delivery commencing with April and through July 1947, after study of existing commitments for this commodity and the sales estimate supplied to me by the Sales Department covering the current year we find our entire production capacity will be taken up for the year 1947.

However, it is possible that we may be able to supply a car during the period mentioned if we were called upon for it but at this time we could not guarantee even that amount.

/s/ P. J. GIBBONS
Executive Vice President

G-T

[fol. 176] February 24, 1947

Continental Ore Company
500 Fifth Avenue
New York-18-New York

Attention: Mr. Joel A. Mirel

Gentlemen:

With reference to your letter of February 11, 1947 with respect to contracting for one carload per month of Black Vanadium Oxide, Fused, beginning in April and through July, 1947, i.e. four carloads, after reviewing our existing commitments for this commodity and estimated sales, we believe that we will be able to take care of these four carloads if delivery is extended over a six months' period beginning with April, 1947.

Our present contract price for Fused Black Vanadium Oxide is

$1.10 per pound contained V_2O_5

F.O.B. seller's works, Bridgeville, Pennsylvania, with freight charges allowed to destination, unless such freight charges are in excess of the rate to St. Louis, Missouri. In such case, freight charges to St. Louis will be allowed.

The above price will be in effect until March 31, 1947 and thereafter for each calendar quarter-year unless revised in writing by us at least fifteen days prior to such quarter-year.

This offer, which is subject to our usual contract terms, is subject to acceptance by execution of our formal contract on or before March 15, 1947, so would ask that you advise us promptly whether or not you are interested in having us submit our contract to cover the tonnage above mentioned.

Very truly yours,

John B. Girdler
Assistant General Manager of Sales

JBG:DEW

[fol. 177]

CONTINENTAL ORE COMPANY
500 FIFTH AVENUE
NEW YORK 18, N. Y.

March 7, 1947

Vanadium Corporation of America
Graybar Building
420 Lexington Avenue
New York 17, New York

Att: Mr. John B. Girdler

Re: Black Vanadium Oxide

Gentlemen:

Receipt is acknowledged of your letter dated February 24, in which you submit us your proposal for four carloads of Black Vanadium Oxide at the contract price of $1.10 per pound contained V_2O_5 f.o.b. your works, Bridgeville, Pennsylvania with freight charges allowed to destination, unless such freight charges are in excess of the rate to St. Louis, Missouri. In such case freight charges to St. Louis will be allowed.

We have submitted your proposal to our buyers and have been informed that our price is out of line with current market offerings. From what we have been able to ascertain in our subsequent discussions, the oxide would have to be made available to us around $1.00 to $1.05 in order to permit doing the business. We would thank you to give consideration to a revision in your price to conform with the price indicated above as we believe prospects appear favorable for doing the business at our indicated figure.

Very truly yours,

CONTINENTAL ORE COMPANY

/s/ JOEL A. MIREL
J. A. Mirel

JAM/vi

[Stamp—Mar. 10, 1947—Sales Dept.]

[fol. 178]

[Stamp—To WAM√—GL√—JBG√—JHM√—RHF√—AJS√—Return to JBG]

[Handwritten notation—file]

March 13, 1947

Continental Ore Company
500 Fifth Avenue
New York 18, New York

Attention: Mr. J. A. Mirel

Gentlemen:

With reference to your letter of March 7 relative to our offer to sell Black Vanadium Oxide Fused, we regret that you are not interested in our proposal for the sale of this material at $1.10 per pound contained V_2O_5 as quoted in our letter of February 24.

We are not prepared at this time to consider making a reduction in our current prices.

Very truly yours,

John B. Girdler
Assistant General Manager of Sales

JBG:HK

[fol. 179]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 111

[Letterhead of Climax Molybdenum Company,
New York, New York]

February 10, 1943

Mr. Henry J. Leir, President
Continental Ore Company
500 Fifth Avenue
New York, N. Y.

Subject: Ferrovanadium

Dear Sir:

In reply to your letter of February 8th we herewith submit to you, in duplicate, the following contract offer with the understanding that your acceptance at the place designated therefor at the bottom hereof shall constitute a mutual binding agreement between us, our successors and assigns.

1) You will ship to us at Langeloth, Pennsylvania, freight prepaid, 20,000 pounds of contained V in a V_2O_5 concentrate, to which you now have title.

2) You will ship to us adequate low copper aluminum to make it possible for us to produce ferrovanadium from the V_2O_5.

3) We shall convert the V_2O_5 into ferrovanadium, using our own labor, equipment and supervision.

4) We shall pack and deliver to you, f.o.b. Langeloth, Pennsylvania, into suitable fiber containers, all of the ferrovanadium produced as a result of this operation.

5) You will pay to us the following amounts:

a—Twenty cents (20¢) for each pound of vanadium contained in the ferro-vanadium returned to you.

b—Costs of fluxing materials necessary, such as lime and fluorspar.

c—Costs of containers and labor for packing such ferrovanadium.

d—It is understood that we shall pursue this matter with all diligence but do not guarantee any specific delivery date nor a minimum percentage recovery. The usual Force Majeure clause will apply to this agreement. We expect to complete this program during the month of March 1943.

Kindly return to us the duplicate of this contract after you have executed same.

Very truly yours

CLIMAX MOLYBDENUM COMPANY
OF PENNSYLVANIA

/s/ A. LINZ
Arthur Linz
Vice President

AL:JMM

ACCEPTED:

CONTINENTAL ORE COMPANY

By ..... President.

[fol. 180]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 113

[Handwritten notation—W P B]

WAR PRODUCTION BOARD
WASHINGTON, D. C.
November 10, 1943

IN REPLY REFER TO:

F-A EFH 1013-SSB

Mr. W. G. Haldane
Assistant General Superintendent
United States Vanadium Corporation
30 East 42nd Street
New York, New York

Dear Mr. Haldane:

This is to acknowledge your letter of October 29th requesting that the restrictions placed upon vanadium immediately be removed in accordance with the expressions of opinion at the Vanadium Industry Advisory Committee Meeting held on October 25, 1943.

I should also like to reiterate the understanding reached at the meeting that in view of present supply-demand situation in vanadium all requests, implied or otherwise, to maintain maximum production have been withdrawn insofar as vanadium, itself, is concerned.

The Ferro-Alloys Branch of the Steel Division has started the procedure to remove vanadium from allocation as requested by the Vanadium Industry Advisory Committee. We are unable to advise you what disposition will be made of this matter, but hope that favorable action will be taken in the near future. With respect to the further

recommendations by the Committee, these have been referred to the proper authorities for consideration.

Very truly yours,

/s/ E. Franklin Hatch

E. Franklin Hatch
Assistant Chief
Ferro-Alloys Branch

[fol. 181]

In United States District Court

Plaintiffs' Exhibit No. 114

[Letterhead of Imperial Paper and Color Corporation, Glens Falls, N. Y.]

December 5, 1944.

Continental Ore Company,
500 Fifth Avenue,
New York 18, N. Y.

Attention—Mr. M. Wolf

Gentlemen:—

Replying to your letter of December 4th, we are writing to advise you that we are not willing to write a letter such as you suggest at this time, because it might be construed as a representation that would involve an obligation that we do not care to assume. It is true that with the manpower situation as it is, we could not proceed with the Vanadium project, aside from all other considerations, but it is also true that if the manpower situation were easier, we would have to have more confirmation than we have been able so far to obtain that there are, and always will be, ample sources of vanadium-bearing material, so that if we invested capital in a plant, we would not sooner or later find ourselves with equipment idle, because of being unable to secure necessary raw materials.

We now have some leads out to see what we can determine as to the probable operation of the Otavi mines after the cessation of hostilities in Europe. Mr. Leir on his proposed trip to Mexico ought to be able to establish whether there is a new source of vanadium-bearing ore available in that country, and if so, in what quantities and in what concentrations.

As we see this situation at the present time, one of the principal hazards in entering into the manufacture of V_2O_5 is the possibility that you may not be able to get sufficient raw material. Certainly the two major producers at this time have protected themselves against such a contingency by controlling primary sources of raw material. We would not be willing at the outset at least to make an investment of the size necessary to do this, but nevertheless we must be sure that there are sources from whom we can always obtain vanadium-bearing materials at a price which will enable us to manufacture and compete with those who control their own supplies.

Yours very truly,

IMPERIAL PAPER AND COLOR CORPORATION

/s/ A. F. BROWN
General Manager
Pigment Color Division

AFB:AEG

[fol. 182]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 116

February 19, 1943

File: Stimmel
U.S. Vanadium
Vanadium Corporation of America
Nisley & Wilson

Stimmel confirmed that present production of ferro vanadium amounts to about

400,000 lbs. V per month

They are trying to build up a stock pile of ferro to the extent of at least 500,000 lbs. of V. Once this is achieved, they may release their restrictions as to the sale of ferro-vanadium somewhat.

Regarding quantities of vanadium concentrates available in Durango or Monticello for shipment to us, Stimmel said that it has been agreed between Metals Reserve and U.S. Vanadium and Vanadium Corp. respectively that

> U.S. Vanadium has first call on all material produced in Durango Vanadium Corp. of America has first call on all material produced in Monticello.

As to who would have first call on the vanadium concentrates produced by Nisley & Wilson, Stimmel answered that probably no one would have. It therefore must be our aim to have Metals Reserve recognize our first right on the production at Gateway.

mw/sk

[fol. 183]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 127

[Handwritten notations—9-486—124—dash]

[Stamp—Received—Apex Smelting Co.—Jan 14 1942—8:30 A.M.]

CONTINENTAL ORE CORPORATION

TO Apex Smelting Company

SUBJECT RE: NISLEY & WILSON VANADIUM/ SHATTUCK

DATE
1/13/42

Attention: Mr. L. Lippa

We are very sorry to learn from your correspondence that Blanding has sold its output to Vanadium Corp.

This makes it even more imperative that you promptly write to Nisley & Wilson to ship the material now ready to you without further delay.

We also want to stress the necessity of sending the proposed letter out to the Vanadium Corp. It becomes more and more necessary every day to obtain a share from them, of the output of the new Government plant in Monticello, and we cannot pave the way for this too early.

Regarding SHATTUCK, we suggest that you approach them and offer them a contract for larger monthly quantities than they have at present from you, in order to induce them to increase their output.

We consider this most important, since they are now the only regular source of Vanadium we have.

CONTINENTAL ORE CORPORATION

/s/ HENRY J. LEIR
RK

Henry J. Leir/rk

[fol. 184]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 128

CONTINENTAL ORE CORP Room 1717
500 FIFTH AVE

[Western Union Form]

OCTOBER 17 1940

APEX SMELTING COMPANY
2537 WEST TAYLOR STREET
CHICAGO ILL

BEFORE WRITING VANADIUM CORPORATION
PLEASE AWAIT OUR TODAYS LETTER

CONTINENTAL ORE CORPORATION

[fol. 185]

[Letterhead of Apex Smelting Co., Chicago, Ill.]

October 17, 1940

Continental Ore Corporation,
500 Fifth Avenue,
New York, N.Y.

Gentlemen:

We have your letter of the 16th, also wire of the 17th, and wish to advise that we had no intentions of writing the Vanadium Corporation in view of the fact that we did write to them about two months ago, at which time they advised us that they did not have any of this material to offer.

The Electro Metallurgical's representative was in our office today at which time we mentioned this to him, and while

he advised that their price was $1.15, he said they could not take on any new accounts.

We wish to advise that it is possible we may receive a shipment of approximately 4000# of Vanadic Acid from Shattuck within the next few weeks. The price will be $1.10.

We have just checked up our figures on the heat made to Bracburn Steel, and according to our figures the profit to us is $25.00 after deducting your commission but before paying the freight. Therefore, it would indicate that the profit on this heat will be about $15.00.

Our cost figures will be sent to you on this 70 to 80% grade as soon as we get our 40% figures together.

We, therefore, want to again state that we do not want to accept any orders under $2.75; in fact we feel that for this grade there should be no difficulty in obtaining $2.80, and we hope that you will act accordingly.

Very truly yours,

APEX SMELTING CO.

/s/ L. LIPPA
L. Lippa.

LL/r

[fol. 186]

PLAINTIFFS' EXHIBIT No. 135

August 17, 1942

Vitro Manufacturing Co.
Corliss Station
Pittsburgh, Pennsylvania

Gentlemen:

Att: Mr. A.J. Strod, Sales Manager

Re: VANADIC ACID

We refer to our recent correspondence regarding the above and would like to know whether you are now in a position to supply us with some of your vanadic acid.

We are open for any quantity between five and fifteen thousand pounds per month and wish to inform you that our price schedule of June 1 (see our letter of June 30) is still in force.

May we hear from you soon?

Very truly yours

CONTINENTAL ORE CORPORATION

Martin Wolf

mw:sk

[fol. 187]

[Letterhead of The Vitro Manufacturing Company, Pittsburgh, Pennsylvania]

August 19, 1942

Continental Ore Corporation
500 Fifth Avenue
New York, New York

Attention: Mr. Martin Wolf

Gentlemen:

We acknowledge with thanks receipt of your two letters of August 17.

VANADIC ACID. Present arrangements covering deliveries of our entire production of Vanadic Acid would not permit us the sale of this material in other directions. The arrangements are made for a long term, and so for some time, we will not be able to furnish any Vanadium compound to outside users.

WULFENITE. The sample of Wulfenite you recently sent us is now in the process of investigation; and as soon as we have the data together on the possibilities of the separation of the Molybdenum and Vanadium, we will immediately contact you. The process is rather involved and it will take us a little time before a practical conclusion can be arrived at. Wulfenite appears to be a useful product, and we will make every effort to work out a scheme for separating the useful materials contained.

Yours very truly,

THE VITRO MANUFACTURING COMPANY

/s/ A. J. STROD
A. J. Strod, Vice President

AJS:BAP

[fol. 188]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 142

May 25, 1938

Mr. Robert E. Adams
1436 Ute Ave.
Grand Junction
Colorado

Dear Sir:

Re: Carnotite ores and Vanadium concentrates

We are indebted for your address to the Bureau of Mines, Washington, D. C. and would like to know your position in regard to selling us the above materials which we intend to buy regularly.

As we are an independent firm, you may be interested in entering into such a relationship with us.

We will be very glad to hear from you on this matter, and remain

Very truly yours,

APEX SMELTING CO.

L. Lippa

LL:JB

[fol. 189]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 145

[Stamp—Received—Apex Smelting Co.—Dec 26 1941—8:30 A.M.]

[Letterhead of Defense Plant Corporation,
Washington, D. C.]

December 20, 1941

Mr. L. Lippa
The Apex Smelting Company
2537 W. Taylor Street
Chicago, Illinois

Dear Mr. Lippa:

Reference is made to your letter of December 13, 1941, requesting information as to the possibility of acquiring reasonable tonnage of Vanadium Pentoxide for conversion into Ferro Vanadium.

This Corporation has made a commitment to the Vanadium Corporation of America for the construction of a new plant near Monticello, Utah, for the production of Vanadium Pentoxide. The entire facilities of this plant will be leased to the Vanadium Corporation, and, therefore, it is suggested that you contact them with reference to obtaining a portion of the output of this proposed plant.

It is further suggested that if you have not already obtained a priority allocation for Vanadium Pentoxide that you contact Mr. H. K. Masters, Office of Production Management, Social Security Building, Washington, D. C., relative to obtaining such allocation.

[Handwritten notation—Last paragraph struck through and signed W. Boyer]

Yours very truly,

/s/ JOHN W. SNYDER
Executive Vice President

[fol. 190]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 147

UNITED STATES VANADIUM CORP. AGENT
METALS RESERVE CO.
GRAND JUNCTION, COLO.

9/17/43

Dear Page:

Please ask Cecil to stop at Thompsons when ever convenient to do some welding on their reversible conveyor.

Before Bill Lass went to Dove Creek I told him 96¢ per hr. was all we could pay a blacksmith. He understand, I'll speak to him again when I see him; I know he is tops and I hope he can stay on with us.

Blanding hasn't pd us on the Howell-Bay compressor. [fol. 191] I'll remind them. I~~m~~ haven't heard from Charlie or Mr. Cu[redacted]ingham. Have they been there.

I've been trying to call P Denny about the ore prices. No Connections.

I wonder if anything could be gained by meeting with Denny and Mr. Brannsome about the Ore Prices?

I'll try and get the Chandler-Shumway deal out to you to-morrow.

Regards,

/s/ JOHN

[fol. 192]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 148

Inter-Company Correspondence

COMPANY U.S.V.-M.R.C. LOCATION Monticello, Utah.

To Mr. John W. Hill,

LOCATION Grand Junction, Colorado.

DATE February 4, 1944.

[Handwritten notation—Sent to Monticello]

Dear John:

M. L. Nielson was in today and said that he had not received a contract cancelation. He appeared to feel slighted in the matter. I told him his contract would apply to the notice on the bulletin board. However, it might be well to send him a formal cancelation as we have with the rest of the producers in the country.

Wade & Curran were were in today, not to see me, but to see Mr. Bransome and Denny. They were quite put out regarding the whole matter and said they did not feel that their contract was subject to cancelation. Mr. Bransome is familiar with our general form and if their contract is on one of our O.P.A. forms Mr. Bransome felt that there was no question that the contract is automatically canceled when we stop receiving ore. Evidently their next move is to see Dan Melinskie in Cortez.

All of this to merely keep you posted as to your friend's activities.

Sincerely,

/s/ PAGE
Page Edwards.

E-h.

Personal

[fol. 193]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 152

CONTRACT

THIS AGREEMENT Made and executed this 7th day of May, 1940, by and between MESA VANADIUM COMPANY, a corporation organized and existing under the laws of the State of Colorado, with its principal office located in Grand Junction, Colorado, party of the first part, and the UNITED STATES VANADIUM CORPORATION, a corporation existing under the laws of the State of Delaware, with its principal Colorado office located at Uravan, Colorado, party of the second part, WITNESSETH:

WHEREAS, The first party is the owner under contract of purchase of a certain mill located near Cedar, Colorado, and is desirous of arranging for the operation of the said mill for the treatment of carnotite ores; and

WHEREAS, Second party is interested in the possibilities of the use of said mill for the milling of carnotite ores;.

NOW, THEREFORE, In consideration of the mutual covenants of the parties and the payments to be made by the second party to the first party, the first party grants unto the second party the sole right to enter upon the said property for the period of sixty days from the date of this agreement, to make such examination and experimental work as it may deem fit and to conduct such metallurgical test work or operation as second party deems sufficient or necessary.

It is agreed that the second party has the option on or before the expiration of said sixty-day period to operate said mill and to make such alterations and additions at its expense as are necessary, and otherwise to conduct the business of the reduction of ore or ores therein; and the right so to do is hereby granted.

[fol. 194] In the event that second party shall exercise its option to operate, it agrees to pay the first party a

sum equal to ten cents per lb. of vanadium pentoxide produced as a result of said operation.

Second party agrees that in the event it exercises its option to operate first party's mill, second party will pay all cost of operation, including the costs of ores delivered at the plant, working men's compensation, insurance premium on mill buildings to a total insured value of $6000.00, and will pay such taxes as may be assessed against the property during the period in which the mill is operated; and second party further agrees to pay the sum of $4000.00 to first party at the time second party exercises the option to operate, which sum is to apply on the royalty of ten cents per lb. of vanadium pentoxide produced as herein provided; and second party agrees that in the event it shall operate said plant, it will operate the same to the maximum capacity that is reasonably possible.

It is further provided, however, that in the event second party shall exercise said option to operate, and shall thereafter fail to operate the property for a period of thirty days and this failure is not due to flood, fire or act of God, the first party may at its option terminate the tenancy of second party upon written notice to be given second party at Uravan, Colorado, which notice shall provide, however, that second party shall have a thirty-day period after the receipt of notice to correct second party's deficiency.

It is further agreed that in the event the second party after operating said property decides the operation should not be continued for reasons which are good and sufficient to itself and of which reasons second party shall be the sole judge, then the mill of first party shall revert to first party and any additions and improvements that have been made to the mill shall become the property of the first party as liquidated damage.

[fol. 195] It is further agreed that if after the period of sixty days' examination hereinbefore provided, the second party shall option not to operate the mill, the second party shall have the right to purchase from first party such ore or ores as may be delivered or stockpiled at the mill at a price to be determined as follows, to-wit: The price shall be the cost to first party or to second party acting as agent for the purchase of the ores, plus five cents per lb. of 75%

of the vanadium pentoxide contained; and it is further agreed that in the event the second party elects to purchase such ores at the end of the sixty-day period for examination and experimental work, it agrees to pay first party the sum of $4000.00, which amount shall be applied as an advance payment on the royalty of five cents per lb. for 75% of the vanadium pentoxide contained in these ores.

IN WITNESS WHEREOF The parties have hereunto set their hands and seals by their officers and agents first authorized so to do.

MESA VANADIUM COMPANY

By /s/ COE VANDEREN
President

[SEAL]

/s/ CHARLES H. BUTTOLPH
Secretary

First Party

UNITED STATES VANADIUM CORPORATION

By /s/ W. G. HALDANE

[Signature illegible]

Second Party

[fol. 196]

CONTRACT

THIS AGREEMENT Made and executed this 7th day of May, 1940, by and between MESA VANADIUM COMPANY, a corporation organized and existing under the laws of the State of Colorado, with its principal office located in Grand Junction, Colorado, party of the first part, and the UNITED STATES VANADIUM CORPORATION, a corporation existing under the laws of the State of Delaware, with its principal Colorado office located at Uravan, Colorado, party of the second part, WITNESSETH:

That first party is the owner of a certain mining lease and option dated August 5, 1939, together with an addenda to mining lease and option dated April 22, 1940, executed with one George A. McKee, covering carnotite claims in San Miguel and Montrose Counties, Colorado, and is desirous of selling ore which it has a right to obtain or mine under the said lease and option; and the party of the second part is desirous of purchasing the said ores from the first party;

NOW, THEREFORE, In consideration of the mutual agreements of the parties and the payments to be made by second party, IT IS AGREED:

First party will deliver to second party at the mine such ores as may be mined or delivered from said claims at a price to be determined as follows:

A. In case the ores are mined by George A. McKee under the terms of the lease and option above referred to, the price of the ore shall be the amount to be paid by first party to George A. McKee, plus a further consideration of 5¢ per lb. for 75% of the vanadium pentoxide (V_2O_5) contained in said ore.

B. In case the ores are mined by the first party, or by its agents or lessees, the price shall be the entire cost of mining and transportation to the delivery point specified in the said McKee lease and option, plus a royalty of 10% of the value of the ore thus delivered; and said values are determined as set forth in the McKee lease and option in regard to the initial 1000 tons mined, i. e.;

[fol. 197] For ores containing between 2 and 3% vanadium pentoxide (V_2O_5) $8.00 per net dry ton;

For ores containing between 3 and 4% vanadium pentoxide (V_2O_5) $15.00 per net dry ton;

For ores containing between 4 and 5% vanadium pentoxide (V_2O_5) $21.00 per net dry ton;

For ores containing between 5 and 6% vanadium pentoxide (V_2O_5) $32.00 per net dry ton;

And for ores bearing over 6% vanadium pentoxide (V_2O_5) as set forth in said McKee lease and option.

It is understood and agreed that the above mentioned 10% royalty is payable to George A. McKee under the terms of a recent option between George A. McKee and first party as assignee of Charles H. Buttolph.

Second party agrees to pay first party in addition an amount equal to 5¢ per lb. for 75% of the contained vanadium pentoxide in said ore.

The party of the second part agrees to purchase said ores at the rate of production, provided for in the above mentioned lease and option with George A. McKee, unless this agreement is terminated as hereinafter provided.

The party of the second part agrees to pay the first party $1000.00 upon the execution of this agreement and an additional $5000.00 at the end of ninety days, said payments to be applied on royalties as hereinafter provided; that is to say, said $6000.00 shall be advance payment against the royalty of 5¢ per lb. of 75% of the contained vanadium.

The party of the second part reserves the right to cancel this agreement at any time within the life of the McKee lease and option; provided that, in the event of such cancellation, any amounts or difference between the $6000.00 paid by second party to first party and the amount which is due first party on the basis of 5¢ per lb. of 75% of vanadium contained shall become the property of the first party in full liquidation of any loss or damage arising out of the cancellation of this agreement by second party.

It is understood and agreed that second party shall have the option to mine and remove ores, under the terms of the lease and option granted by George A. McKee, as the agent [fol. 198] or representative and in the place of first party; and in the event that second party shall exercise this option to mine and remove ores, it shall carry Workmen's Compensation on all employees and keep the property free from lien or encumbrance, and shall in addition perform such work as may be required for annual assessment on said McKee claims, and cause affidavits thereof to be filed as provided by law, pay before delinquent any current taxes

levied against said claims, and in all other respects preserve the claims as provided for in the said lease and option executed between George A. McKee and first party as assignee of Charles H. Buttolph.

IN WITNESS WHEREOF The parties have hereunto set their hands and seals by their officers and agents first authorized so to do.

MESA VANADIUM COMPANY

By /s/ COE VANDEREN
President

/s/ CHARLES H. BUTTOLPH
Secretary

First Party

UNITED STATES VANADIUM CORPORATION

By .....

Second Party

[fol. 199]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 155

[Handwritten notation—Mr. Haldane]

COPY

New York, N. Y.

October 13, 1943.

E. M. SALES CORPORATION

Mr. J. D. Swain,
Room 1712, Bldg.

Mr. J. H. Critchett
Mr. F. P. Gormely
Mr. J. M. Price
Mr. J. R. Van Fleet

Dear Mr. Swain:

The net result of our discussion in Washington on the subject of vanadium and tungsten during the past week may be stated as follows:

A meeting of the Industry Advisory Committee is scheduled for 2 PM, October 25th to approve certain proposals that will be presented at such time. (since WPB had already discussed this date with others, it was impossible to have the meeting called for an earlier date.) The purpose of the meeting will be:

1. to rescind the directive requiring vanadium producers to mine to the fullest extent of their capacity.

2. to propose the removal of ferrovanadium, ferrotungsten, tungsten ore, vanadium oxide and tungsten metal powder from an allocation basis. (Steps are being taken by WPB in anticipation of this meeting to have these allocations removed. It is estimated by WPB that allocations may be no longer required by December 1st.)

3. to make recommendations to be passed on by the Steel Division of WPB for any extended applications of vanadium which producers may feel are justified. (The Vanadium Branch has solicited the assistance of the producers in making these recommendations, which may be a rather difficult assignment for the producer should the Steel Branch ask for specific applications.)

4. to receive a report from the Army concerning the minimum requirements of vanadium production that are necessary to supply their needs of by-product. The vanadium oxide producers will be asked the same question; namely, the minimum production to which they can go without curtailing Army needs. WPB proposes that if industrial requirements are substantially less than the necessary production for Army needs they would ask the Army to purchase the surplus oxide for a stockpile of their own. Mr. Lewis Levansaler who replaced Mr. E. F. Hatch as the vanadium and tungsten ore man in WPB made an informal comment at luncheon that in his opinion it was necessary to curtail vanadium oxide production to such a point where it would be necessary to begin working away a portion of the huge accumulation of oxide and ferrovanadium each month.) It was generally agreed that the net result from satisfactory action taken on items 2 and 3 would not affect to any great extent the present sales of vanadium or tungsten.

The present order requiring that not more than 35% of the sales of high speed steel be in the form of 18-4-1 tungsten type and not less than 65% of the sales of any one producer be in the form of molybdenum type steel will probably be brought up for discussion at this meeting. The Industry Advisory Committee will probably be asked for an expression of opinion and perhaps a recommendation for a modification or discontinuance of this order.

[fol. 200] The details of a lend-lease order for Russia specifying 200 gross tons of 70/80% "B" grade ferrovanadium were discussed. We quoted a price of $2.90 per pound of contained vanadium F.O.B. Niagara Falls, N. Y., with freight charges allowed to destination, except to those

points taking a freight rate in excess of the Niagara Falls to St. Louis, Missouri rate, for each of the following compositions:

	50/60% Vanadium		70/80% Vanadium	
Aluminum	1.25%	maximum	1.25%	maximum
Silicon	1.25%	"	2.00%	"
Carbon	.20%	"	.20%	"
Phosphorus	.10%	"	.10%	"
Sulphur	.10%	"	.10%	"

WPB was advised that delivery could be expedited through the specification of the 50/60% grade because such analysis is in regular production. We also advised them that should the order become available to us within the next week or ten days we could produce approximately 100 gross tons by December 31, 1943. WPB plans to divide the total order between our competitors and ourselves on the basis of our respective production of vanadium during the past three or possibly six months.

We have learned that our competitors have advised WPB that they wish to dispose of, through government agencies, 250,000 pounds of contained vanadium in the form of ferro between now and the end of this year. In response to a similar question asked of us, I replied that I could not give them specific figures offhand, but I estimated that we too would like to move from 200,000 to 250,000 pounds of contained vanadium. I returned to WPB at the close of the Production Adjustment Committee meeting and learned that they had approved the 200 ton lend-lease requirement, and in addition had approved an additional sale of ferrovanadium by us to the Metals Reserve Company to complete a total of approximately 225,000 pounds of contained vanadium prior to the end of this year. Presenting this matter to the Committee was done by Mr. Miles K. Smith on his own initiative in order to clear the "first hurdle", so he described it, on any request for additional orders for ferrovanadium from Metals Reserve prior to the end of this year. It will be necessary for us to apply formally should we wish to sell any additional vanadium to Metals Reserve. We plan to withhold any formal application for

an order until such time when we have more specific information as to the portion of the lend-lease requirements which may be directed our way.

Very truly yours,

W. B. REMMERS

[fol. 201]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 156

[Stamp—Received—Apex Smelting Co.—Nov 22 1941—8:30 AM]

DANIEL MILENSKI
Attorney-at-Law
CORTEZ, COLORADO

Nov. 19, 1941

Apex Smelting Co.
2537 W. Taylor Street
Chicago, Illinois

Dear Sir:

Upon my return, I find that Bigler has sauntered off to Denver to see a football game, he will return Saturday.

As we pay a royalty to the owner of the claims, I have advised him of your offer, and will undoubtedly hear from him by the first of the week.

The product that we have ready for shipment is moulded, not ground. We would much prefer not grinding it as it will take additional equipment which we are not particularly anxious buy. However we might make some arrangements to grind it if absolutely necessary.

We particularly like the sound of that $1.05.

With best regards,

/s/ DAN MILENSKI

[fol. 202]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 159

[Stamp—Received—Apex Smelting Co.—Feb (day illegible) 1942—8:30 AM]

BLANDING MINES COMPANY
(OF UTAH)

Mail Address:
P. O. Box 895
Cortez, Colorado

February 23, 1942

Apex Smelting Co.
2537 West Taylor St.
Chicago, Illinois

Gentlemen:

We have your wire of February 14 and letter confirming the wire. No report was made at an earlier date for the reason that we were endeavoring to become more familiar with the situation.

As we take the letter we received from the War Department, we are not directed to sell our product to you, and as previously advised, other arrangements have been made for the sale of our product and we have informed the War Production Board that we desire to continue with our present sales arrangement.

We regret that we are unable to sell our product to you; however, you are aware of our set-up and the fact that we are merely operating under a lease. We are producing now under somewhat of a handicap for the reason of adverse climatic conditions with result of poor roads.

Very truly yours

BLANDING MINES COMPANY

By /s/ L. EATON
Ass't Secretary

le

[fol. 203]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 161

[Stamp—Received at 420 Lexington Ave. N. Y.—MOhawk 4-0950]

[Postal Telegraph Form]

NA46 55 VIA FRENCH=PARIS OCT 4 1939 1010A

LC BRANSOME VANCORAM NEWYORK US (BRANSOME. CARE VANADIUM CORP OF AMA FURTHER YOUR CABLE TWENTYSEVENTH STOP BEING LONDON LAST WEK HAVE RECEIVED PROPOSAL FROM REPRESENTATIVES UNION CARBIDE FOR HUNDRED TWENTY THOUSAND POUNDS VANADIUM PENTOXYD STOP WOULD YOU ARRANGE IN ACCORD WITH SHEATH TO SECURE FIRM THAT QUANTITY SHIPMENT OCTOBER NOVEMBER STOP ARE NOW ARRANGING CREDIT STOP KINDLY CABLE CONFIRMATION=

JAOUL ELECTROCHIMIE=

1231P

[Stamp—Answer required—Please Ring Postal Telegraph]

[fol. 204]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 163

[Handwritten notation—Accounting Information 29]

Charge to the account of VANADIUM CORPORATION OF AMERICA MOHAWK 4-3580

[Western Union Cablegram Form]

NEW YORK NOVEMBER 8, 1939

TROCHIM
PARIS

TWO ADDITIONAL LOTS PENTOXIDE PREPARED FOR SHIPMENT STOP FIRST LOT GROSS FIFTY-TWO SEVEN EIGHTY EIGHT NET FORTYNINE SIX EIGHTY CONTAINED PENTOXIDE FORTYFIVE THOUSAND VALUE FIFTYNINE THOUSAND FOUR HUNDRED EIGHTY SEVEN DOLLARS CREDIT ACCOUNT VANCORAM SECOND LOT GROSS FIFTY-THREE EIGHT HUNDRED THIRTY NET FIFTYONE FIVE HUNDRED EIGHTY FIVE CONTAINED FORTY-FIVE THOUSAND VALUE FIFTYNINE THOUSAND FOUR HUNDRED SIXTY FOUR DOLLARS CREDIT ACCOUNT ELECTRO METALLURGICAL SALES CORPORATION STOP INCUDES ALL CHARGES EXCEPT WAR RISK INSURANCE STOP RECOMMEND CREDITS BE ARRANGED EARLIEST POSSIBLE DATE UNDERSTAND FREIGHT RATE INCREASE NOVEMBE THIRTEENTH

SEND PAID

VANCORAM

[fol. 205]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 164

[Letterhead of Vanadium Corporation of America, New York, New York]

[Stamp—Via Air Mail]

Nov. 9, 1939

Societe d'Electro Chimie,
10 Rue du General Foy,
Paris, France.

Attention: Mr. Andre Jaoul

Gentlemen:

In connection with your cable of October 10, 1939, confirming your needs of pentoxide contained in the amount of 150,000 lbs. contained, we cabled you as follows:

Oct. 13, 1939

"Re Cable October Tenth Shipment Pentoxide Sixtyseven Steel Drums Gross Thirtyfive Thousand Four Hundred Thirtysix Pounds Net Thirtythree Thousand Five Hundred Pounds Value Forty Thousand Dollars Including All Charges Except War Risk Insurance Stop Rush Credit Guaranty Trust New York Expect Ship October Twenty-eight Steamship Independence Hall United States Lines"

Oct. 20, 1939

"Second October Shipment Three Hundred Bags Vanadium Pentoxide Gross Thirty Five Nine Ninety Five Net Thirty F ur Four Ninety Five Value Exclusive War Risk Insurance Forty Thousand Dollars Letter of Credit Should Specify War Risk Insurance Covered By You Stop Open Credit Covering This Shipment to Account Electro Metallurgical Sales Corporation Stop Have Received No Advise Credit Account Vancoram per our Cable Thirteenth Im-

perative Credits be Arranged Quickly if Shipments Are to Leave October"

Nov. 8, 1939

"Two Additional Lots Pentoxide Prepared for Shipment First Lot Gross Fiftytwo Seven Eighty Eight Net Fortynine Six Eighty Contained Pentoxide Fortyfive Thousand Value Fiftynine Thousand Four Hundred Eighty Seven Dollars Credit Account Vancoram Second Lot Gross Fiftythree Eight Hundred Thirty Net Fiftyone Five Hundred Eighty Five Contained Fortyfive Thousand Value Fiftynine Thousand Four Hundred Sixty Four Dollars Credit Account Electro Metallurgical Sales Corporation Stop Includes All Charges Except War Risk Insurance Stop Recommend Credits be Arranged Earliest Possible Date Understand Freight Rate Increase November Thirteenth"

[fol. 206] As you will note from the above cables, we now have prepared and ready for shipment in our warehouse 75,000 lbs. of contained pentoxide and Electro Metallurgical Sales Corporation have the same amount prepared and in their warehouse ready for shipment.

We were rather disappointed that the credit for the first 30,000 lot, which you advised on October 24th should be forthcoming within the week, did not come to hand and thus enable us to get this first lot off during the month of October. As we advised in the cable of November 8th, our information is that freight rates will be increased on or about November 13th. If this should take place, it will be necessary to have additional credit arranged to take care of the increased freight rate. We trust, however, that in accordance with our recommendation in our cable of November 8th, that permits and credits will be forthcoming in time for us to take advantage of the present rates in obtaining shipping space.

We would appreciate anything that may be done to rush the required credits in order to release the 150,000 lbs. of contained pentoxide which we and the Electro Metallurgical Sales Corporation have ready and jointly holding earmarked for you.

To date we have had no formal confirmation by mail from you covering your cable of October 10th.

With kindest personal regards, I am,

Yours very truly,

/s/ G

Secretary and Treasurer.

G-T

P.S. Since writing the above, credit to cover the first shipment of 30,000 lbs. contained pentoxide, in the amount of $40,000. has been received. Shipment will go forward on the earliest possible boat.

[fol. 207]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 165

Charge to the account of VANADIUM CORP. OF AMERICA MOHAWK 4-3580 $15

[Western Union Cablegram Form]

NEW YORK DECEMBER 14, 1939

DEFERRED

PAINVIN
TROCHIM
PARIS

YOUR CABLE TENTH ARRANGE CREDIT COVER FOUR HUNDRED THOUSAND POUNDS PENTOXIDE CONTAINED AMOUNT ABOUT SIX HUNDRED TWENTY THOUSAND DOLLARS STOP ABOUT THREE HUNDRED TEN THOUSAND ACCOUNT EACH ELECTRO METALLURGICAL SALES CORPORATION AND VANCORAM STOP FORTYFIVE THOUSAND POUNDS PENTOXIDE CONTAINED DUE TO LEAVE NEWYORK DECEMBER TWENTYSIXTH STEAMSHIP ADAMAS COMPLETING VANCORAM PORTION FIRST ORDER

VANCORAM BRANSOME

SEND PAID

[fol. 208]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 166

Via Airmail—copy regular mail

March 28, 1940

Mr. G. J. Painvin,
Societe d'Electro-Chimie,
10, Rue du General Foy,
Paris, France.

Dear Mr. Painvin:

Your letter of February 19 finally arrived today, which is rather a record, I believe, in speedy transmission of the mails and, according to the marks on the envelope, it did not leave Paris until February 28. However, I assume these are necessary delays which none of us can complain of under the present circumstances.

I am afraid that you have misunderstood my cables and letters in respect to the situation on V_2O_5.

At no time has the situation been easy in the supplying of either Ferro or Pentoxide. Up until the present date, we have been required, in order to keep our inventories up to a reasonable figure, to refuse to sell a great many people who have had firm orders in one hand and cash in the other and were willing to pay practically any price that we asked. As a matter of fact, for domestic consumption and what we did sell for export required us at one time to ship practically hot metal.

Our position is a little better now, but one that would speedily be uncomfortable should one large order for Ferro or Pentoxide come in from abroad or from this country.

As you probably know, we are in close touch with the Government on any Critical or Strategical materials and

have assured them that we would not sell abroad any quantities of our alloys that might jeopardize the position of our country in the event of an emergency.

In respect to some materials, the only way that we could supply them would be to have the raw materials shipped from abroad and have us process in transit, thus preserving our existing stocks of such raw materials. I can't say that I am entirely in sympathy with this procedure, but, nevertheless, it is there and must be observed.

The prices for export are still the same, namely, $3.70 per pound for Ferro and $1.70 for Oxide. These prices make for people trying to buy domestic and sell export, but I am happy to say that we seem to have this phase under very good control and if any shipments do get away from us they are very small ones. The good part of this program is that as long as we can control our shipments, [fol. 209] speculation by individuals is prevented and, as I said before, we are only selling to our regular domestic customers.

I am taking up your time and going into detail on this as I want you to clearly understand that it is our desire to take care of you and your requirements of any materials we have in excess of domestic requirements if you will let us know as far in advance as possible and on the same basis as our last shipments provided the export price remains the same. In short, I cannot promise that we will be in a position to ship Ferro or Oxide within a short period of time if the request comes without warning.

I feel certain that you will understand that I am not trying to build up any business for ourselves by alarming you as to the supply of Vanadium. If we had loosened up in our policy in selling certain brokers here, our supply of Vanadium would have been taken up for months to come and I think we are still in that position.

So much for business.

The news we get from your side of the water is so varied that even after a lengthy study and sifting of pseudo facts we are always in the state of bewilderment. It leaves us

only with the hope that things go well with you and that we will receive favorable news.

I hope this finds you well and that same applies to your entire family.

With my very best regards to you and Jaoul, I am

Sincerely,

/s/ E. D. B.

EDB/C

[fol. 210]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 171

VANADIUM CORPORATION OF AMERICA
INTER-OFFICE COMMUNICATION

TO D. W. Viles, Mine Supt.
Monticello, Utah

DATE May 25, 1943

FROM E. D. Bransome, President

SUBJECT PERSONAL AND CONFIDENTIAL

It occurred to me that the thing we want to do is to have our trial on the 1400 tons of roscoelite made as quickly as possible at Durango and I can not recall how long you said it would take to make delivery, that is, provided we discussed that point.

With the above objective in view, it seems to me that you might be able to arrange with Johnny Hill and Page Edwards the shipment of some of our roscoelite ore at Naturita, even though we had to absorb the trucking, inasmuch as if it is desired to move the Naturita pile, the sooner we do it the better.

If trucks are going back empty for Fall Creek and Omega, it would seem that the main expense we would be subject to would be the loading.

You probably have already thought of this, but if not, I think it might be arranged with Johnny and Page in such a manner that would not prejudice any future price that we might get from Naturita.

Will you let me hear from you as to what you think of this idea?

E. D. Bransome

IN UNITED STATES DISTRICT COURT

Plaintiff's Exhibit No. 20 for identification

INTERROGATORY NO. 33

UNION CARBIDE AND CARBON CORPORATION AND SUBSIDIARIES CONSOLIDATED

STATEMENT OF NET SALES, TOTAL COST OF NET SALES, AND PROFIT BEFORE PROVISION FOR FEDERAL INCOME AND EXCESS PROFITS TAXES PERTAINING TO VANADIUM, URANIUM, AND THEIR RESPECTIVE COMPOUNDS FOR THE PERIOD JANUARY 1, 1933 TO AND INCLUDING DECEMBER 31, 1947.

YEAR	NET SALES	TOTAL COST OF NET SALES	PROFIT FROM NET SALES BEFORE PROVISION FOR FEDERAL INCOME AND EXCESS PROFITS TAXES
1933	$ 933,308.58	697,462.57	$ 235,846.01
1934	1,265,401.61	923,375.70	342,025.91
1935	1,115,527.01	884,513.20	231,013.81
1936	970,068.90	732,751.95	238,316.95
1937	1,828,303.62	1,277,845.22	546,458.40
1938	1,709,554.31	944,248.46	765,305.85
1939	2,506,139.30	1,098,822.39	1,407,316.91
1940	2,532,016.36	1,198,912.96	1,333,903.40
1941	4,404,387.75	3,073,483.55	1,330,904.20
1942	4,310,918.81	3,867,258.16	443,560.65
1943	5,401,433.72	4,753,997.17	707,436.55
1944	3,896,833.95	2,893,881.09	1,002,952.86
1945	2,605,243.62	1,971,411.00	634,492.62
1946	2,270,089.07	2,444,062.20	173,973.13
1947	4,302,194.08	3,152,638.31	1,149,405.77

[fol. 211] IN UNITED STATES DISTRICT COURT

PLAINTIFF'S EXHIBIT NO. 20 FOR IDENTIFICATION

217

41

EXHIBIT IX

YEARLY TOTAL COST (INCLUDING PROPORTION OF GENERAL ADMINISTRATIVE AND SELLING EXPENSE) OF ALL VANADIUM AND URANIUM PRODUCTS AND THEIR RESPECTIVE COMPOUNDS AND TOTAL VALUE OF SALES REALIZED THEREFROM - YEARS 1933 - 1947

Year	Total Cost	Sales Value
1933	$1,389,983	$1,235,641
1934	1,546,518	1,502,004
1935	1,348,118	1,523,689
1936	1,655,717	2,198,957
1937	2,129,574	3,157,734
1938	1,776,871	2,569,591
1939	2,951,519	4,879,016
1940	3,063,910	5,054,587
1941	4,620,153	7,680,178
1942	6,320,550	8,574,993
1943	2,443,468	3,996,464
1944	5,306,279	6,886,049
1945	3,235,019	3,992,324
1946	2,133,027	2,407,177
1947	3,850,330	4,267,850

CABLE ADDRESS, "FERROALLOY" NEW YORK

G. J. EX. NO. 575

CODES, WESTERN UNION LIEBER'S A. B. C. 5TH EDITION

ELECTRO METALLURGICAL SALES CORPORATION

CARBIDE AND CARBON BUILDING, NEW YORK

DISTRIBUTORS "ELECTROMET"

FERRO-ALLOYS AND OTHER ELECTRO-METALLURGICAL PRODUCTS

SALES AGENTS

E. J. LAVINO & COMPANY, BULLITT BUILDING, PHILADELPHIA

HICKMAN, WILLIAMS & COMPANY, PITTSBURGH, CINCINNATI, CHICAGO, ST. LOUIS, DETROIT, CLEVELAND, NEW YORK, PHILADELPHIA.

MEMORANDUM OF SALE

(IN DUPLICATE)

CONTRACT No. M-10870

September 15th, 1933

ELECTRO METALLURGICAL SALES CORPORATION A CORPORATION OF NEW YORK HEREBY AGREES TO SELL AND

Vanadium Corporation of America OF New York, N. Y. HEREBY AGREES TO BUY

QUANTITY	A minimum of 1,000,000 pounds but not over a maximum of 1,250,000 pounds to be so taken.
MATERIAL	Vanadium Pentoxide (V_2O_5) - Specifications as per letter attached.
PRICE	Eighty Cents (80¢) per pound of V_2O_5, f.o.b. cars, seller's works or warehouses, with freight charges allowed to Bridgeville, Pa., surcharge for buyer's account.
TERMS	Net cash tenth of month following date of invoice.
DELIVERY	In equal monthly quantities from date to December 31, 1934 inclusive.
REMARKS	See letter attached which is pursuant to and part of this contract.

Payments to be made in U. S. gold coin or its equivalent in currency with exchange on New York. Each delivery to constitute a separate independent contract and to be governed by the terms hereof. Works' tests of the Manufacturer of said material to govern settlements.

All agreements of the Seller herein are subject to and contingent upon strikes, riot, war, commandeering or requisitioning or allotting to others in priority to the Buyer by the Government, invasion, fire, explosion, accident, delays in procuring sufficient and suitable raw materials, curtailment or failure in obtaining sufficient electrical power, delays of carriers, and/or other delays beyond the reasonable control of the seller and/or the Manufacturer, affecting either the Seller and/or the Manufacturer of such ferro-alloy. PROVIDED, HOWEVER, that in case of and upon the happening of any such event whereby the total output of the Manufacturer's plants of ferro-alloys and/or other products which the said plants are or may be then engaged in producing, is curtailed, or a portion or all of said output is commandeered or requisitioned or allotted to others in priority to the Buyer by the Government, then the Seller shall use its best efforts to fairly and equitably pro rate any ferro-alloys, which may be produced at said plants and which are not commandeered or requisitioned or allotted to others in priority to the Buyer by the Government, between the Buyer and its other customers of ferro-alloys under contracts, on the basis of the respective minimum monthly tonnages of

[fol. 213]

PLAINTIFF EX 1

MATERIAL	Vanadium Pentoxide (V_2O_5) - Specifications as per letter attached.
PRICE	Eighty Cents (80¢) per pound of V_2O_5, f.o.b. cars, seller's works or warehouses, with freight charges allowed to Bridgeville, Pa., surcharge for buyer's account.
TERMS	Net cash tenth of month following date of invoice.
DELIVERY	In equal monthly quantities from date to December 31, 1934 inclusive.
REMARKS	See letter attached which is pursuant to and part of this contract.

Payments to be made in U. S. gold coin or its equivalent in currency with exchange on New York. Each delivery to constitute a separate independent contract and to be governed by the terms hereof. Works' tests of the Manufacturer of said material to govern settlements.

All agreements of the Seller herein are subject to and contingent upon strikes, riot, war, commandeering or requisitioning or allotting to others in priority to the Buyer by the Government, invasion, fire, explosion, acciden., delays in procuring sufficient and suitable raw materials, curtailment or failure in obtaining sufficient electrical power, delays of carriers, and/or other delays beyond the reasonable control of the seller and/or the Manufacturer, affecting either the Seller and/or the Manufacturer of such ferro-alloy. PROVIDED, HOWEVER, that in case of and upon the happening of any such event whereby the total output of the Manufacturer's plants of ferro-alloys and/or other products which the said plants are or may be then engaged in producing, is curtailed, or a portion or all of said output is commandeered or requisitioned or allotted to others in priority to the Buyer by the Government, then the Seller shall use its best efforts to fairly and equitably pro rate any ferro-alloys, which may be produced at said plants and which are not commandeered or requisitioned or allotted to others in priority to the Buyer by the Government, between the Buyer and its other customers of ferro-alloys under contracts, on the basis of the respective minimum monthly tonnages of the particular ferro-alloy to be delivered to the Buyer and to such other customers under the provisions of such contracts, but the Seller shall be released from any and all its other obligations hereunder, **provided however**, that any ferro-alloy sold under the agreement but not delivered to the Buyer at the times herein provided for shall be delivered by the Seller as soon thereafter as practicable, taking into consideration the requirements of such ferro-alloy of all other customers of the Seller.

No change in or addition to the terms or provisions hereof shall be made unless approved by an executive officer of the Seller in writing

Whenever the Seller shall have any doubt about the Buyer's responsibility, it may decline to make further deliveries hereunder until the Buyer shall have satisfied the Seller of his responsibility or shall have paid for such further deliveries in advance.

If freight is allowed hereunder it is based on present existing freight rates and if such freight rates vary up or down on any shipments made hereunder the price of such shipments shall be increased or decreased as the case may be by the respective amounts of such freight increase or decrease. If any excise tax is now or hereafter imposed upon the Seller, resulting from sale or delivery under this agreement, the Buyer shall also pay the amount thereof to the Seller.

If the Buyer fails to make payments or commits any other default under the terms of this or any other contract between the parties hereto and such failure or default shall continue after notice thereof from the Seller to the Buyer, then the Seller shall have the right, at its option, without further notice, either to defer any further deliveries hereunder or to stop any shipments in transit hereunder or to cancel or terminate such contract or contracts; and no waiver by the Seller of its right to take advantage of any such failure or default shall stop the Seller to insist on its strict rights in case of and as to any subsequent failure or default.

After the Buyer has accepted same, to render this instrument binding upon Electro Metallurgical Sales Corporation, it must be approved in writing by an executive officer of said Corporation.

ELECTRO METALLURGICAL SALES CORPORATION.

ACCEPTED:

VANADIUM CORPORATION OF AMERICA

BY ..... President

BY .....
SALES AGENTS

APPROVED: ..... PRESIDENT

A

E.M.S. 903

64 13B

METALLURGICAL SERVICE
OLIVER BUILDING, PITTSBURGH, PA.

CABLE ADDRESS "FERROALLOY"
CODES: WESTERN UNION AND LIEBERS

ELECTRO METALLURGICAL SALES CORPORATION

UNIT OF UNION CARBIDE AND CARBON CORPORATION

DISTRIBUTORS "ELECTROMET" BRAND

FERRO-ALLOYS AND OTHER ELECTRO-METALLURGICAL PRODUCTS

NIAGARA WORKS, NIAGARA FALLS, N.Y.
KANAWHA WORKS, GLEN FERRIS, W VA.
VIRGINIA WORKS, HOLCOMB ROCK, VA.

CARBIDE AND CARBON BUILDING
30 EAST 42ND STREET
NEW YORK

September 15, 1933.

II B1

Mr. A. A. Corey, Jr., President,
Vanadium Corporation of America,
120 Broadway,
New York City.

Dear Mr. Corey:

This letter is pursuant to and part of the attached contract M-10870, dated September 15, 1933, calling for a minimum of 1,000,000 pounds but not over a maximum of 1,250,000 pounds of vanadium pentoxide.

This oxide will analyze from 85% to 90% V_2O_5 and the typical analysis will be the same as outlined in our letter to you of November 10, 1931, which is as follows:

Typical Analysis

V_2O_5	86.5%	S	0.40%
P	0.015%	Ni	Trace
Cu	0.015%	MgO	10.00%
As	Trace	Insoluables	1.00%

September 15, 1933.

II B1

Mr. A. A. Corey, Jr., President,
Vanadium Corporation of America,
11 Broadway,
New York City.

Dear Mr. Corey:

This letter is pursuant to and part of the attached contract M-10870, dated September 15, 1933, calling for a minimum of 1,000,000 pounds but not over a maximum of 1,250,000 pounds of vanadium pentoxide.

This oxide will analyze from 85% to 90% V_2O_5 and the typical analysis will be the same as outlined in our letter to you of November 10, 1931, which is as follows:

Typical Analysis

V_2O_5	86.5%	S	0.40%
P	0.015%	Ni	Trace
Cu	0.015%	Na_2O	10.00%
As	Trace	Insoluables	1.00%

Impurities are the following maximum percentages:

P	0.02%	Ni	Trace
Cu	0.02%	Na_2O	12.00%
As	Trace	Insoluables	2.50%
S	0.7%		

We agree to furnish you not over half of the total tonnage with a sulphur content of between 0.40% and 0.70% and not under one-half with a sulphur content of maximum 0.40%.

The minimum of 1,000,000 pounds is to be taken out by December 31, 1934. If the additional 250,000 pounds making up the maximum is required, the expiration date will be extended to April 1, 1935, although the buyer has the privilege of taking the maximum tonnage from date to December 31, 1934.

It is understood that the buyer will return the bags to the seller free of charge, the seller paying the return freight charges.

The seller will furnish the buyer with analysis of each batch shipped at the time of shipment, which will be the original analysis determined at the time the material was packed.

In the event buyer's analysis of any batch differs from analysis furnished by seller, buyer will immediately notify seller and will segregate said material for further sampling. Seller will arrange with buyer to jointly sample said material and from the sample obtained one portion will be analyzed by the buyer, one by the seller and a third portion will be retained for analysis by Ledoux & Company as umpire chemist in the event buyer and seller are unable to agree on their results obtained from the joint sample.

The buyer and seller, in their respective laboratories, will analyse their portion of the joint sample, and, if the results obtained by each laboratory are in close agreement with the analysis on which the material was billed, no adjustment will be made.

In the event of a wide discrepancy in the results obtained by the respective laboratories on said sample or in the event of a dispute, Messrs. Ledoux & Company shall analyze the retained third portion, and their results shall be final and binding on both parties. The expenses of the umpire chemist will be borne by the party whose results are farthest from the results of said umpire chemist.

Thanking you to execute one copy of the contract, returning it to us and retaining one copy for your files and records, I am

Very truly yours,

J.M. Price
President

JMP:AP

[Vol. 215]

January 24, 1934

Mr. J. M. Price, President,
Electro Metallurgical Sales Corp.,
30 East 42nd Street,
New York City.

Dear Jack:

This is to confirm our arrangement over the phone today in relation to our V_2O_5 contract with your Corporation.

While the first four cars, as I explained to you, did not develop as favorably as we expected inasmuch as we could not produce the higher quality grades, we are hopeful that future shipments along the lines suggested by your Mr. McNeill and further development work on our part will prove to be satisfactory for all grades.

As you know, we sent you our check for one-half of your original invoice for the first four cars and in early February you will receive check for the balance due.

You are authorized to ship us for receipt in early February and for March account one car of the higher grade oxide in conformity with Mr. McNeill's letter of December 27, 1933.

Immediately after running this car through our operations, I shall be pleased to communicate with you with respect to results obtained and at the same time discuss with you the question of further deliveries.

Yours very truly,

President.

Copy to P.J.G.

(96)

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16

November 7, 1934

Mr. J. M. Price, President,
Electro Metallurgical Sales Corporation,
30 East 42nd Street,
New York City.

Dear Mr. Price:

This will confirm my statement over the phone to you this afternoon to the effect that we will accept immediate shipment of two cars of Vanadium Oxide under the existing contract.

It will also confirm my additional statement that I would be dropping in to see you either tomorrow or Friday or early next week to discuss the balance due and other matters.

Yours very truly,

President.

[fol. 217]

Copy to P.J.G.

U. S. VANADIUM CORP.

ELECTRO METALLURGICAL COMPANY

30 EAST 42ND STREET

NEW YORK

F. M. HAGGERSON
PRESIDENT

November 15, 1935.

Mr. E. D. Bransore,
President, Vanadium Corporation of America,
120 Broadway,
New York, N. Y.

Dear Mr. Bransome:

I expect that we will be getting in touch with you sometime within the next ten days with regard to the price on Oxide.

Very truly yours,

Fred'k Haggerson

110

6 58 B

METALLURGICAL SERVICE
OLIVER BUILDING, PITTSBURGH, PA

CABLE ADDRESS "FERROALLOY"
CODES WESTERN UNION AND LIEBERS

ELECTRO METALLURGICAL SALES CORPORATION

Unit of Union Carbide and Carbon Corporation

UCC

DISTRIBUTORS "ELECTROMET" BRAND
FERRO-ALLOYS AND OTHER ELECTRO METALLURGICAL PRODUCTS

G. J. EX. NO. [redacted]

CARBIDE AND CARBON BUILDING
30 EAST 42ND STREET, NEW YORK

November 12th, 1934.

II B1

Mr. A. A. Corey, Jr., President,
Vanadium Corporation of America,
120 Broadway,
New York, N. Y.

Dear Mr. Corey:

Confirming conversation had with you in my office on Friday of last week, please be advised that we are arranging to ship to your works between now and December 31st three additional carloads of vanadium oxide to apply against our contract N-10970, which completes the minimum of 1,000,000 pounds of oxide due on this contract. The terms to apply on these three additional carlords will be 30-60-90 days from January 1st.

We are also arranging to ship you an additional 250,000 pounds of this oxide during the months of April, May and June, 1935 with the regular terms as outlined in the contract applying and at the price stipulated in the contract. This covers the maximum quantity for which the contract was drawn but the expiration date of this contract has been extended three months.

It is the writer's understanding that, as soon as you check in this matter further, you will take up with me the question of the possibility of an additional amount which you might require for the last half of next year and we will at that time discuss the price to apply on this additional quantity.

Assuring you of our pleasure in being able to make the above changes in your present contract, I remain

Very truly yours,

J. M. Price

President

JMP:AP

OLIVER BUILDING, PITTSBURGH, PA

CODES WESTERN UNION AND LIEBERS

ELECTRO METALLURGICAL SALES CORPORATION

Unit of Union Carbide and Carbon Corporation

DISTRIBUTORS "ELECTROMET" BRAND
FERRO-ALLOYS AND OTHER ELECTRO METALLURGICAL PRODUCTS

CARBIDE AND CARBON BUILDING
30 EAST 42ND STREET, NEW YORK

April 2nd, 1935.

U. J. EX. NO. 782

Mr. A. A. Corey, Jr., President
Vanadium Corporation of America
120 Broadway
New York, N. Y.

Dear Mr. Corey:

Pursuant to my letter of September 15, 1933 and confirming the conversation had with the writer in my office this morning, we will extend the delivery date of the 250,000 pounds of vanadium oxide still due on your contract to the third and fourth quarters of this year instead of shipment being made in the second quarter.

As arranged this morning, a car of this oxide will be shipped in each of the following months: July, September and December, 1935.

Assuring you of our pleasure in being able to make this change for you, I am, with kind regards

Very truly yours,

President

JMP:AP

April 3, 1933

Mr. F. M. Price, President,
Electro Metallurgical Sales Corporation,
30 East 42nd Street,
New York City.

Dear Mr. Price:

This morning I have your confirmation of our verbal arrangement with respect to the remaining 250,000 pounds of vanadium oxide under our contract, dated September 15, 1933.

We appreciate your action in this matter very much indeed.

Yours very truly,

President.

053

G. J. EX. NO. 737

November 13, 1935

Mr. F. H. Haggerson, President,
Electro Metallurgical Company,
30 East 42nd Street,
New York, N. Y.

Dear Mr. Haggerson:

Please do not think I am hurrying you as there is no real rush about getting a price on Oxide, but it happened to be an item of unfinished business and I am wondering if you have had a chance to arrive at any conclusions as yet.

Very truly yours,

President.

C. J. EX. NO. 5[illegible]

ELECTRO METALLURGICAL SALES CORPORATION

CARBIDE AND CARBON BUILDING, NEW YORK

DISTRIBUTORS "ELECTROMET"

FERRO-ALLOYS AND OTHER ELECTRO-METALLURGICAL PRODUCTS

SALES AGENTS

E. J. LAVINO & COMPANY, BULLITT BUILDING, PHILADELPHIA

MICHIGAN, WILLIAMS & COMPANY, PITTSBURG, CINCINNATI, CHICAGO, ST. LOUIS, DETROIT, CLEVELAND, NEW YORK, PHILADELPHIA.

MEMORANDUM OF SALE

(IN DUPLICATE)

CONTRACT No. L-1070

January 3rd, 19 36.

ELECTRO METALLURGICAL SALES CORPORATION A CORPORATION OF NEW YORK HEREBY AGREES TO SELL AND

Vanadium Corporation of America OF New York, N. Y. HEREBY AGREES TO BUY

QUANTITY	A minimum of 250,000 pounds but not over a maximum of 375,000 pounds to be so taken.
MATERIAL	"ELECTROMET" Brand Vanadium Pentoxide (V_2O_5) - Specifications as per letter attached.
PRICE	Eighty cents (80¢) per pound of V_2O_5, f.o.b. cars at Seller's works or warehouses, with freight charges allowed to Bridgeville, Pa., surcharge for Buyer's account.
TERMS	Net cash thirty (30) days from date of invoice.
DELIVERY	As required, in as nearly equal monthly quantities from date to December 31st, 1936 inclusive.
REMARKS	See letter attached which is pursuant to and part of this contract.

copy to RB 1/17/36

Payments to be made in U. S. lawful currency with exchange on New York. Each delivery to constitute a separate independent contract and to be governed by the terms hereof. Works' tests of the Manufacturer of said material to govern settlements.

All agreements of the Seller herein are subject to and contingent upon strikes, riot, war, commandeering or requisitioning or allotting to others in priority to the Buyer by the Government, invasion, fire, explosion, accident, delays in procuring sufficient and suitable raw materials, curtailment or failure in obtaining sufficient electrical power, delays of carriers, and/or other delays beyond the reasonable control of the Seller and/or the Manufacturer, affecting either the Seller and/or the Manufacturer of such ferro-alloy, PROVIDED, HOWEVER, that in case of and upon the happening of any such event whereby the total output of the Manufacturer's plants of ferro-alloys and/or other products which the said plants are or may be then engaged in producing, is curtailed, or a portion or all of said output is commandeered or requisitioned or allotted to others in priority to the Buyer by the Government, then the Seller shall use its best efforts to fairly and equitably pro rate any ferro-alloys, which may be produced at said plants and which are not commandeered or requisitioned or allotted to others in priority to the Buyer by the Government, between the Buyer and its other customers of ferro-alloys

[fol. 224]

IN UNITED STATES DISTRICT COURT

EXCERPTS FROM PLAINTIFFS' EXHIBIT NO. 47
FOR IDENTIFICATION

SPECIAL REPORT

ON

VANADIUM

C. E. MacQuigg

June 1935

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REPORT ON VANADIUM

by

C. E. MacQuigg

UNION CARBIDE AND CARBON RESEARCH LABORATORIES, INC.

30 East 42nd Street,

New York City.

June 1935

Synopsis

The study that is the subject of this Report was made to correlate the information available on the question of vanadium production and markets in the United States today. Particular emphasis has been laid on the metallurgical uses of vanadium, and certain conclusions drawn regarding the probable trend of the future market.

The conclusion is drawn that a material reduction in selling price will be necessary to stimulate, or even to maintain, vanadium in its position as an alloying element. A tentative selling price is suggested after a review of the vanadium economics of the Electro Metallurgical Company.

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VANADIUM MARKET POSSIBILITIES

INTRODUCTION:

The ability to decide as important and complicated a question as the matter of the Corporation's policy on vanadium obviously requires a knowledge of all the facts, including the newest ones bearing on the subject. Some of

these facts have been obtained and arranged under the following headings:

I. METALLURGICAL ADVANTAGES RESPECTING THE USE OF VANADIUM

This is a subject upon which there is much information and well-defined opinion, and it is realized that we ourselves are not un-informed on the matter; however, it is worth while to re-examine the facts and opinions extant *at present*, since there is evidence that the favor with which alloys are regarded changes from time to time—somewhat like the "change of style" in other commodities. This leads to a changing emphasis which follows in part the new developments in requirements, and in part the successful sales propaganda.

II. ECONOMICS OF A "COME-BACK" FOR VANADIUM. COST OF PRODUCTION AND PROBABLE MARKET VALUE AT THE STEEL MILL

In this section, the production costs and sales prices are discussed in an attempt to determine how far a

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[fol. 229] cut in prices could be expected to go without rendering the manufacture and sale unprofitable to the Corporation. This material enables a conclusion to be drawn concerning the ability to win back the market already lost.

III. NEW POSSIBILITIES FOR EXPANDING THE MARKET IN METALLURGY AND FOR OTHER USES IN TECHNOLOGY. CONCLUSIONS AND RECOMMENDATIONS

Markets other than the use in steel are considered for expanding the consumption of vanadium. Possibilities of different methods of utilization for metallurgical purposes are also developed. Conclusions are drawn, and recommendations made.

IV. APPENDIX. COLLATERAL INFORMATION

Data are shown respecting the economics of the vanadium situation.

ACKNOWLEDGMENTS:

The writer is indebted to Mr. Van Fleet for assistance on production costs, and to Mr. Critchett for helpful criticism.

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I. METALLURGICAL ADVANTAGES RESPECTING THE USE OF VANADIUM

It may be recalled that a survey of the automobile industry was made in 1931.[1] At that time it was learned that the unbiased views of the automobile metallurgists indicated that vanadium was on the way out, the reason being that it was too costly; other combinations, such as molybdenum steels and silico-manganese, were able to perform satisfactorily and at a considerable saving in cost to the car builder. At that time there was little or no indication that other alloy combinations were better than vanadium, but simply that they would perform satisfactorily and were much cheaper. Since the time of the survey mentioned, still further reduction in the use of vanadium has taken place, and it is hardly too much to say that its large-scale use in the automobile industry is now practically eliminated. Doubt has been expressed as to whether the preference today might still be for vanadium—even though the price differential were reduced or eliminated—and this justifies some study of whether the "style" in metallurgical thought has altered and the former real or fancied advantages of vanadium would now be admitted. These remarks apply to all types of steels utilized in the automobile, but it should be pointed out that the last stand of vanadium was in springs. The present status with respect to vanadium in the automobile is summarized by Table VIa in the Appendix, which was prepared by Mr. R. C. Good.

It will be noted that the metallurgists of the Vanadium Corporation of America stresses the beneficial effect of

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[fol. 231] vanadium on the qualities of springs; in our

[1] "Summary of the Present Status of Vanadium Steels in the Automobile Industry," by C. E. MacQuigg and S. C. DuTot, May 11, 1931.

report[1] made in 1931, the matter of vanadium springs was carefully looked into, and at that time the situation was not particularly pleasing, nor was the outlook reassuring as to future developments. For example:

"*Leaf springs*: From an unsatisfactory interview at the Mather Spring Company in Toledo, it was gathered that vanadium steel was largely used for leaf springs in automobiles; however, with few exceptions it was later found that silico-manganese was used and that Mather's business must be chiefly in other lines (possibly railroad). There is also a tendency to use plain carbon steel in some of the leaves and the alloyed steel in the main leaf only. It was learned that Hupp is changing to a new steel with manganese 0.75 to 0.95% and 1.0 to 1.20% chromium. This steel was recommended by the Mather Company and is cheaper than chrome-vanadium. (We were led to believe that the steel was worked out by Timken metallurgists, as Mr. Mather is a Director of the Timken Company.) This information would lead to the conclusion that the Mather Company—who apparently were the avowed champions of the vanadium-bearing springs—were also seeking cheaper substitutes. It was learned elsewhere that the principal reasons for the Mather predilection for vanadium springs were that their shop practice and heat-treating equipment were built up around the chrome-vanadium steels.

As will be seen from the summary, Chevrolet constitutes about the only large-scale user of chrome-vanadium steel in springs. It is proving entirely satisfactory, but Mr. Spear, the Metallurgist, is looking for a cheaper steel. A pertinent portion of the detailed report on the Chevrolet interview is quoted: 'As a matter of fact, the chrome-vanadium is now out of the leaf springs in the truck, and it would have lost out in the passenger car also were it not for the fact that they might have to increase the weight of the spring slightly and since this is tied in with riding

[1] MacQuigg and DuTot, loc. cit., pages 5 and 6.

quality they hesitate to make the change; however, as soon as the spring designer can bring out a little better spring so that they can lighten its weight, they will discard chrome-vanadium.'

One car advertises chrome-vanadium leaf springs but does not use it because it costs too much!

Coiled springs: The situation with respect to coiled springs presents a number of different angles and is more involved than with the other components studied. Influences adverse to vanadium have resulted from several causes and these have combined to greatly reduce its consumption in spring wire. As estimated

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[fol. 232] by Mr. Pickwell of the Gibson Spring Company in Chicago, they are 'not making 1/20 or 1/25 of the vanadium coiled springs they made three years ago.' Briefly stated, the adverse influences are:

(a) Swedish carbon steel has been making great inroads quite recently. The Swedish interests have brought their design and manufacturing experts to this country to work with the American customers and then have striven in every way to meet the requirements of the trade. This effort has no doubt stimulated the American steel makers, with the net result that coiled spring wire (plain carbon) may be purchased with a feeling of assured quality. From two sources it was learned that the Swedish carbon spring steel also has a better surface than the chrome-vanadium. Duplicate test specimens are cut from each end of a coil of the carbon steel wire and are tested for quality by coiling, and experience has shown that this is adequate. On the other hand, the chrome-vanadium is not so uniform and the acceptance tests need to be much more comprehensive.

(b) Chrome-vanadium has not been as free from surface defects as has the carbon steel. There was a tendency to place the blame for this on the steel makers who apparently do not or cannot properly deseam their

billets. Swedish chrome-vanadium steel has better surface and is found superior to the domestic product.

(c) A further complaint against chrome-vanadium spring wire was that it is not obtainable in heat-treated condition. While the initial cost of the chrome-vanadium versus the carbon steel is about equal—in fact, it is in favor of the chrome-vanadium—the final cost is nearly two to one in favor of the carbon steel, since the latter is bought in its finished heat-treated state and needs only to be wound into the required helix and given a light tempering to remove working strains.

(d) In most cases the carbon steel has proved satisfactory, and being much cheaper it is naturally used by the spring maker when he is not tied down specifically to chrome-vanadium by the purchase specifications. In some cases as in the aircraft industry (air-cooled engines) the chrome-vanadium wire is still preferred. A few minor uses from the tonnage standpoint, as in clutch springs, still prevail.

One spring metallurgist stated that chrome-vanadium might come back if (i) the American makers would use greater care in its manufacture, and (ii) the cost were sufficiently lower to prove competitive."

The subject has not been further investigated at the present moment, but it is thought that no general increase in the consumption of vanadium in spring manufacture has taken place, nor is indicated as being about to take place.

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[fol. 233] The writings of numerous recognized authorities were consulted, and their views pro and con were abstracted to give a cross-section of what the literature contains as a result of laboratory and practical experiences:

Moore[1] found that the addition of vanadium to a plain carbon steel did not raise the endurance limit to an

[1] "Resistance of Metals to Repeated Static and Impact Stresses." R. R. Moore, A.S.T.M. Vol. 24.

appreciable degree. His vanadium steel, however, did have a high Izod value. On the other hand, the vanadium steel with a different heat treatment had an Izod value five times that of the plain carbon steel whereas its endurance limit was less.

Oya[2] has studied the equilibrium diagram of the iron-vanadium system, and concludes that these metals form an *unbroken series of solid solutions*. With the addition of vanadium, the A_4 transformation is lowered; A_3 is raised, so that the two curves meet at 2.5% vanadium to form a continuous phase boundary. The A_3 point is raised gradually at first up to maximum at nearly 15% vanadium, then rapidly lowered until it reaches room temperature in an alloy containing nearly 35% vanadium. Solubility of carbon in gamma solid solution is markedly decreased by addition of vanadium. The A_1 point—that is, the eutectoid temperature—is raised 15° in the iron iron-carbide system by the addition of 0.5% vanadium. (Vanadium operates to widen the heat treatment temperature ranges of steels.)

Losana[3] states that vanadium accelerates the corrosion of steel at high temperatures in air and in internal combustion engine exhaust gases.

The mechanical properties of carbon-vanadium castings are generally superior to those of plain carbon steels, but there is little advantage in shock value.[4] Also, it is better to normalize than to anneal.

Steels containing 0.14 and 0.30% vanadium were compared as regards tensile properties with plain structural steel, nickel-chromium and chrome-vanadium

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[2] "Science Reports of Tohoku Imperial University," Vol. 19. See also the Transactions of the British Iron and Steel Institute, 1930, Part II, p. 626A.

[3] "Corrosion of Steels at High Temperatures," L. Losana, British Iron and Steel Institute, 1931, Part II, p. 727A.

[4] Knowlton. A.S.S.T. Transactions, September 1927, Vol. 12, p. 482.

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[fol. 234] steels.[1] Vanadium was found to raise the elastic limit and ultimate strength, and to lower the elongation, contraction, and notch toughness. Raising of the quenching temperature affects all these properties in the same direction respectively. Nickel-chromium steels are equal in strength to chrome-vanadium steels where small sections are concerned, but are superior if the section is heavy.

With the exception of the sales propaganda of the Vanadium Corporation of America, the results of laboratory tests have not always been uniformly favorable to the use of vanadium in steels. Its chief recommendations for use have been the following two: (1) The ability to widen the range of heat treatment and thus lessen the "touchiness" of steels containing it, and (2) the generally accepted fact that its presence confers toughness on heavy sections of castings and forgings such as are used in railroad rolling stock. In spite of the occasionally unfavorable laboratory tests, still its good properties in the above two categories are generally accepted, and it is noted in a recent article in THE ENGINEER (London) which describes the "Normandie," that "because of the size and design of the (rudder) stock, vanadium steel was used in it."

While it has been axiomatic that vanadium would act as a scavenging agent as well as an alloying element in steel, it has never been seriously proposed that its efficiency as a deoxidizer justified its use for that purpose alone. Even sales propaganda literature has always pointed out that cleansing of the steel was more efficiently done by means of other elements (silicon, manganese, etc.) added first to do the major part of the "clean-up." While it

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[fol. 235] may be true that such a viewpoint arose from the high cost of the metal, still one may doubt whether vanadium can ever be sold cheaply enough to justify its

[1] "Vanadium in Structural Steels," R. Hohage and A. Grutzner, British Iron and Steel Institute, 1925, Part I, p. 580A. See also Stahl und Eisen for December 18, 1924, Vol. 44, pp. 1713-1717.

competition with the other well-established deoxidizers for such a purpose only. At any likely cost, therefore, vanadium would seem to fail as a serious competitor for the deoxidizer business as such, although it will always have that added merit.

Next consider the toughening quality of vanadium when added to steel, especially heavy castings. This is no doubt the greatest single asset from vanadium additions. In a later section, it will be shown that this is probably the greatest stronghold of vanadium today. Vanadium with chromium or nickel has a peculiar merit which cannot be successfully controverted; here again there is a rift in the lute, inasmuch as molybdenum has been gaining in favor as a toughener of steel. It is the writer's reasoned judgment that molybdenum is not as effective a toughener of high strength steel as is vanadium, but it is so nearly comparable that the approach to parity of the two classes of steels will operate to require just that much more effort to maintain vanadium as a competitor.

It is difficult to compare steels of different analyses for their intrinsic worth or usefulness. Several methods[1] have been suggested for making such comparisons; the chief difficulty results from the fact that applications differ to some extent respecting the quality of the steel considered of greatest importance. For example, a rivet steel must

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[fol. 236] be ductile, and although strength would also be desirable, ductility must come first. On the other hand, a cutting tool must be hard above other properties; nevertheless, ductility cannot be entirely sacrificed.

Some comparisons of wrought chrome-molybdenum, chrome-vanadium and chromium-nickel steel[2] have been made and are shown in Table I. This method makes use of a purely empirical formula which serves to arbitrarily set down a so-called "merit index." This merit index is ob-

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[1] "Chrome and Nickel-Molybdenum Steels," C. N. Dawe, Iron Age for March 16, 1922, Vol. 109, p. 725.
"Evaluation of the Technical Worth of A Steel from Physical Test Data," A. B. Kinzel, A.S.M.E. 1928.

[2] C. N. Dawe and A. B. Kinzel, loc. cit.

tained by adding together the yield point and maximum stress, multiplying that figure by one-half the elongation in 2 in., and dividing the result by 100 minus the reduction of area. In the original article the author, C. N. Dawe, shows results obtained on forged steels of the analyses noted and for different sized bars. The 2 in. square section was selected for reproduction here because it would tend to favorably accent the good obtained from vanadium respecting its toughening effect. Ductility, however, does not seem to be favorably influenced by vanadium as against molybdenum additions. This is true for all of the heat treatments noted, in which the molybdenum produced better results. (Mr. Dawe at the time of the publication of his test data was a metallurgist for the Studebaker Corporation, and it is presumed that the tests shown were the result of unprejudiced experimentation.)

Following the same method of calculation in Table II, the writer made some comparisons of the properties of *cast* steels containing different alloying elements, the tensile properties being taken from reliable sources.[1] Here again the merit indices were calculated by Dawe's formula, and

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[fol. 237] again attention is called to the fact that no particular brief is held for this type of calculation except that it does enable the visualization of all four of the mechanical properties between given steels by comparison of single figures. It may be claimed that this method is unfair in that it fails to properly accent one or more given qualities which possibly should be accented for a given application. No particular property is singled out by this method, which may be thought of as an "over-all" comparison. Zuege's remarks on the effect of vanadium on steel are as follows:

> "Vanadium is a very powerful deoxidizing agent, and it is believed that the beneficial effects obtained through its use are largely due to its elimination of impurities although it also forms complex carbides. In rolled steels it is believed to produce a very fine-grained

[1] "Alloy Cast Steels," D. Zuege, Transactions of the American Foundrymen's Association, 1929, Vol. 37, p. 361.

structure. In castings it is used largely in heavy, irregularly-shaped castings in which it raises the ratio of yield point to tensile strength with no decrease in ductility.

The vanadium steels have in the past been used to a considerable extent in castings where an exceptionally clean metal was desired or where castings of intricate design were required, since vanadium does not confer marked air-hardening properties. It was believed that vanadium imparted to steels the ability to resist repeated stress to a marked degree, but some recent investigators believe that its importance in this respect has been exaggerated."

Recognizing the objections to Dawe's method of comparison, the writer has calculated the properties of two S.A.E. steels from the Society's publication just off the press.[1] Kinzel's method of calculation has been used for the results shown in the last column of Table III, the emphasis being placed on elastic ratio and ductility, and the relative

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[fol. 238] weightings being given by the following exponentials:

Maximum stress	$= \frac{1}{2}$
Elastic ratio	$= \frac{2}{3}$
Elongation	$= 1.0$

From Table III it is seen that the vanadium steel is definitely superior. No particular justification is offered for the selection of the exponents, since they would be subject to change for different conditions of service; it is felt that they are as fair as any others for conditions where lightness must be combined with resistance to shock.

In conversation with Mr. Bob Byrd of the Midvale Company concerning the relative costs of A.A.R. steels, Classes A and B, he made the statement that the differential against Class B steel was in part due to the high manganese con-

[1] "Iron and Steel Specifications," Reprint from the 1935 S.A.E. Handbook, March 1935.

tent, which is specified somewhat higher than that of Class A and to the presence of which he quite firmly insisted the major portion of the additional physical properties were due. His personal feelings were quite "bearish" on the merits of vanadium. He further stated that vanadium was used by many steel makers for its deoxidation properties alone, so that the residual vanadium was very low—in other words, the addition of a mere pinch which might entirely disappear and certainly was not left to the extent of more than 0.03 or 0.04%.

He went still further and stated that in his own personal experience, vanadium in combination with chromium made one of the most difficult steels with which to meet specification requirements. He much prefers the chrome-molybdenum compositions. His final thought was that vanadium was due to continue its decline because of its lack of merit in comparison with molybdenum. These remarks of an experienced steel maker are included here to illustrate the

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[fol. 239] widely opposing opinions that may be obtained respecting the desirability of any given steel analysis.

In Table V will be found the relative costs of a number of S.A.E. alloy steels, some of which are comparable to vanadium steel and others are not, the figures being taken from IRON AGE for April 25, 1935. It is thus seen that the most expensive vanadium steel is fourth in order of costliness of all of the steels shown, while the cheapest vanadium steel is only eighth among the eighteen steels listed, thus placing vanadium steels at present among the most expensive of alloy types.

There are more sides to the cost of vanadium steels than appear in a mere cataloging of the selling price, among them being the matter of mill losses. Due to the fact that one steel is harder to work than another, heavy rejections may be encountered because of such causes as poor ingot surface which will lead to seams and fissures, thus giving rise to excessive chipping costs. It is also a fact that some steels will cause heavy rejections from difficulties in rolling, such as corner cracking, which also is an adverse factor; the sensitiveness in heat treatment is another factor. Finally, there is the loss of the given element in re-

melting. These factors establish the selling price, and their weighted effect is expressed economically in the alloy extra except as to cost of working up by the purchaser. Table VI shows the consensus of opinion regarding some of the factors just enumerated. The showing by vanadium is about average. There are special ways of taking care of some of the difficulties mentioned, such as the remelting of the vanadium-containing scrap in an electric furnace, but this is a feature which most plants are not equipped

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TABLE VI

APPROXIMATE EFFECTS OF ALLOYING ELEMENTS ON STEEL WITH RESPECT TO MILL BEHAVIOR

Element	% Recovery When Added to Furnace.	Recovery on Re-melting.	Nature of the Combination in Steel.	Tendency to Segregate in Steel.	Effect on Ingot Yield	Effect on the Rolled Steel Surface	Influence on Hot-Working of Steel	Influence on Grain Size	Effect on Carburization and Penetration	Effect on Heat Treatment Qualities	Effect on Machinability	Absorbent for Nitrogen	Degasifier
Aluminum	None	None	(sol.solu.) None	None	Bad(1)	Beneficial	None(1)	Decreases	Good	(2)	(2)	Yes Nitralloy	Yes
Chromium	93-95(3)	Very low(3)	Carbide and ferrite	Very slight	None	None	Resists	Decreases	Good	Good	Poor	Yes	Slight
Copper	94-96	Very high	Ferrite	None	None	Rather bad	Slightly bad	None	None	None	None(1)	None	None
Manganese	80-85(3)	Low(3)	...stly carbide	Bad	Bad	Very good	Very good	Decreases	Good	Good	Slightly bad(1)	Yes	Slight
Molybdenum	85-95	Very high	Carbide and ferrite	None	None	Bad	Resists	Decreases	Good	Very good	Very good	None	None
Nickel	95.5-97	Very high	Ferrite	None	None	Bad	Resists	None	Good	Good	Bad	None	None
Silicon O.H. Elec.	10-25 50-90(3)	None	Ferrite	None	Very bad(1)	Rather good	Resists	Increases	Bad	None(1)	None(1)	None	Yes
Tungsten	80-95	(3)	Carbide	Very bad	Bad	None	Resists	Decreases	Good	Good	Bad	?	None
Vanadium	Poor to good(3)	Poor(3)	Carbide and ferrite	None	Bad	Fair to None	Rather poor	Decreases	Very good	Very good	None	Yes	Yes

(1) To be accepted with modifications.
(2) Secondary (grain size primary).
(3) Depends on slag condition.

NOTE: Some data from "Basic Open Hearth Practice," A. N. Diehl, American Iron & Steel Institute 1926.

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[fol. 241] to make use of on a tonnage basis. It is not therefore likely that any return scrap value can be credited to vanadium.

Another aspect of the metallurgical use of vanadium which has already been mentioned, needs to be considered in more detail; namely, the scavenging effect it has on steels. This use, while it has long been recognized, has not been emphasized commercially, chiefly because of the high cost of vanadium. However, this picture might possibly be changed; if the cost of vanadium could be brought down materially, it might conceivably allow the element to be "built up" in popularity as a scavenging agent. This angle to the vanadium question is involved with the ability of that element to refine the grain of steel. Grain refinement is an objective of the steel manufacturer, since in general the fine-grained steels are characterized by greater toughness. Recent researches into the relationship of the history of the heat (deoxidation) and grain size in the resulting steel have shown that the fineness of grain can be controlled by manufacturing technique, and that even aluminum can be made to bring about the desired results. In the words of a well-informed metallurgist of our own organization, "So much information has recently been acquired respecting the effect of deoxidation on grain size and how to control it by the use of the cheaper aluminum, it is doubtful if vanadium can be kept in its former place as a grain-refining addition to steel." Such views are disturbing enough to warrant some careful study of the facts. What has been found out concerning aluminum is briefly stated herein, but unfortunately nothing like the same kind of information is available on specific scavenging action of vanadium.

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[fol. 242] In brief, the theory is that a melt of steel on freezing will form a fine-grained mass if enough critically dispersed nuclei are present in the form of non-metallic inclusions; in the absence of such nuclei in critical dispersion, the mass of steel may be coarse-grained. In this way a very clean steel might be coarse-grained, as also would be a steel with (say) very coarsely distributed non-metallic

particles (i.e., supercritical dispersion). Herty[1] has recently published his conclusions on this matter, which in part are as follows:

> "The grain size of plain carbon steels is profoundly affected by the method of deoxidation used.
>
> In mild steels, 0.15 to 0.25% carbon, the finest-grained steels are those to which an excess of aluminum has been added for deoxidation. Semi-killed steels to which a small amount of aluminum has been added are fairly fine-grained in the normalized condition, and silicon-killed steels are more coarse-grained than the semi-killed steels. Both semi-killed an silicon-killed steels are very coarse-grained when heated to 1000° C. (1832° F.) for 1 hr. Steels with excess aluminum are still fine-grained after this treatment, but become coarse-grained at about 1100° C. (2012° F.).
>
> Ladle additions of aluminum, amounting to 0.03% give a very fine-grained steel. If the aluminum is added in the furnace, either as a complex deoxidizer or as ferro-aluminum, the resultant grain size of the steel is very similar to that of a silicon-killed steel. It is evident that under these conditions the alumina particle has been fluxed, thus destroying its ability to act as a nucleus for crystallization."

Whether or not one can agree with the views expressed above, it must be admitted that *any* advancement of technique involving a cheap and effective grain control by means of proper deoxidation of the steel bath is distinctly

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[fol. 243] detrimental to the commercialization of the costlier vanadium. If the grain-refining action of vanadium be due to its deoxidizing power, then by the same token any other efficient deoxidizer would be as effective. It is not

[1] "Effect of Deoxidation on Grain Size and Grain Growth in Plain Carbon Steel," C. H. Herty, D. L. McBride and S. O. Hough, Cooperative Bulletin #65 of the Mining and Metallurgical Advisory Board.

argued that aluminum is as good as vanadium, but on the other hand we must admit that arguments are already available that such is the case. As a matter of fact, vanadium has a dual role; namely, partly as a true alloying element and partly as a scavenger, and this certainly cannot be said about aluminum. To that extent vanadium must always enjoy an advantage, but this is not great enough at the present cost of vanadium.

When, as, and if the cost of vanadium is reduced to a semi-competitive basis as a *deoxidizer*, then we shall doubtless have certain arguments in favor of its use, and these may be developed out of research programs. As an instance, the use of vanadium in a silicon alloy is mentioned, on the assumption that such a combination would give simultaneous reduction and alloying actions; in other words, the silicon will do the rough work of deoxidation, and the vanadium will exert its effect as a strengthening element. This might or might not work advantageously, depending on the correctness of Herty's explanation of the mechanism of grain size control. We might go further and show by experiment that vanadium has afforded an ideal grain size control mechanism because of its simultaneous scavenging and true alloying behaviors. Going a step still further, at a competitive price for vanadium, research might show that alloy steels treated with vanadium are feasible for certain railroad applications where they are now excluded because of their poor showing. Thus a simple dosage with vanadium in such quantities as to allow for partial loss through oxidation but still finishing with enough to permit residual alloying effect might result in a new kind of alloy

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[fol. 244] steel—perhaps, an "Izett" type of alloy steel. At present there is a considerable total quantity of vanadium accounted for by additions to many different types of alloy steels, but in such small amounts as to be residual in not more than 0.01 to 0.05%. Even in such small amounts, many metallurgists contend that the addition is markedly beneficial and that they will not abandon the practice.

In view of the fact that these new ideas respecting the grain size control of steels through the proper use of deoxidizers has been to a large extent based on data re-

cently published in this country, it is of interest to note the views of a British metallurgist,[1] in part as follows:

> "One of the most outstanding metallurgical developments of recent years is the gradual accumulation of knowledge that has led to appreciation of the importance of "inherent austenite grain size," and to some understanding of the methods by which it can be controlled. From the same heat it is possible to produce either inherently coarse-grained or inherently fine-grained steel by controlling the aluminum additions. In the coarse-grained austenite, grain growth takes place at lower temperatures than in the fine-grained. This affects the behavior of the steel in heat-treating operations and has a pronounced influence on the properties obtained. For some purposes coarse-grained steel is preferred, but in general the fine-grained type is best. If, however, the two types are not distinguished and steel of a given analysis turns out to be coarse-grained or fine-grained simply as a matter of chance, then as a result of variations in the behavior of different heats difficulty will be experienced in forging, heat treating and machining under mass production conditions. Furthermore, the mechanical properties obtained in the finished product will vary from heat to heat.
>
> The production of inherently coarse- or fine-grained steel depends primarily on the amount of aluminum added before casting, but control of the manganese,

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[fol. 245] and silicon additions is also important, and titanium when added with the aluminum tends to increase the cleanness and uniformity of the steel.

> Besides aluminum, other strong deoxidizers like titanium, zirconium, and vanadium are known to cause fine grain, but somewhat larger additions are required

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[1] "Grain Size Control and Its Effect on the Mechanical Properties of Forgings," J. M. Robertson, METAL TREATMENT, Spring Number 1935, p. 21.

than in the case of aluminum, and the elements are considerably more expensive. The question to be investigated is whether titanium and zirconium give results sufficiently, if any, better than aluminum to justify the greater cost."

Dr. Robertson barely mentions vanadium, no doubt because of its present cost. With regard to the effect of the additions of aluminum on ingot surface and cleanliness of the steel, Robertson is quoted further:

"The amount of aluminum and silicon required to give inherently fine-grained steel results in fully-killed deeply piping ingots, and for economical manufacture molds with feeder heads must be used. The surface condition of ingots does not lend itself to quantitative study, but according to Epstein, Nead and Washburn, such data as could be obtained did not indicate that either ladle or mold additions of aluminum adversely affected the surface. The same investigators also studied the cleanness of experimental heats of fine- and coarse-grained steel by microscopic inclusion counts and oxygen determinations by the electrolytic extraction method. Satisfactory agreement between the two methods was obtained, and as a result of the work it was concluded that the moderate ladle additions of aluminum required to produce fine-grained steel did not increase the number of detrimental inclusions. Even mold additions up to 12 oz. per ton did not decrease the cleanness of the steel."

With regard to the item of cost, aluminum would cost only 20½¢ per ton when added in 16 oz. dosages per ton of steel, at the current price of that metal. This matter of deoxidation is mentioned here in some detail because it is quite plain that it has a most important bearing on the question of grain size control, which in turn is itself bound up with the benefits of vanadium treatment. If in due time the metallurgist becomes convinced that his results may be obtained by means of additions of cheap aluminum as

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[fol. 246] against a more expensive alloying element such as vanadium, then it will become just so much more difficult to sell the vanadium. It will always be possible to embark on a campaign of counter-propaganda, decrying if possible the use of aluminum because of certain objectionable features, but the fact still remains that ultimately the steel maker will pay no more for his materials than he must in order to obtain the necessary results.

There is one field in which vanadium so far has held undisputed pre-eminence—namely, as an addition to high speed steels. The importance of the position of vanadium in high speed steel is best illustrated by the remarks of the late Dr. J. A. Mathews,[1] who was an authority on the subject.

> "In 1903 the writer experimented with the addition of vanadium to high speed steel and brought about a considerable improvement. The efficiency was increased from two to three times. This resulted in the steel known as Rex AA, which is now the standard type known as 18-4-1, meaning 18% tungsten, 4% chromium and 1% vanadium. That steel has remained as a type for over 25 yr., and for general all-around purposes has not been improved upon."

Vanadium seems to have held its own in the high speed steels in spite of its costliness, and there is no reason at this moment to suspect that its position is being threatened. It might, therefore, be argued that a considerable portion of our vanadium market has been maintained in face of high prices and that to cut the price now when this market is not threatened is to show poor business judgment. More

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[fol. 247] of this discussion is included in a later section, but in connection with the last thought it must always be remembered that high costs invite research for substitutes which might be discovered and might destroy the present

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[1] "The Electric Furnace and the Alloy Age," John A. Mathews, Transactions of the Electrochemical Society, Vol. LXI, 1932, p. 139.

market. (This has actually happened with the molybdenum high speed steels, where the urge has been a strategic one.) As against the possibility of the development of substitutes for vanadium in the high speed steels, it can be pointed out that the trend is apparently in the opposite direction at this time. Several patents have recently been issued to J. V. Emmons of the Cleveland Twist Drill Company and to others, covering new compositions in what are purported to be more efficient high speed steels. These compositions contain from 2 to 6% vanadium, and in the event that the steels prove up to expectations an increased market for vanadium is promised. The vanadium content of the average high speed steel, as shown by a study of some fifty analyses of representative American and foreign steels, is from 0.6 to 1% or more.

Summing up the information on steels, one may conclude that there are several different types of steel employing one or more of the elements chromium, nickel, molybdenum, manganese, silicon or vanadium, and that there is little choice between them with respect to mechanical properties for most common applications. One may manipulate the calculation of the "merit" or "worth" of various steels, but after all the deciding factor governing the selection of a steel will quite largely depend on certain other conditions, such as prejudice of the metallurgist writing the specifications, ease of machinability, "foolproofness" in heat treating, special requirements such as stainlessness, and finally, but not the least important of all, the unit cost.

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[fol. 248] From the figures assembled in this section it is clear that the balance is quite close between any one of several different analyses; this has also been shown in the literature.[1] One may therefore conclude that the decline in the tonnage of vanadium steels has been due mostly

[1] "The Relative Merits of Some Different Alloy Steels with Respect to Certain Mechanical Properties," Bradley Stoughton and W. E. Harvey, Proceedings of A.S.T.M. 1930, Part II, p. 241. (This article shows "merit" calculations on a number of steels by several different methods. It is interesting that the authors give a high rating to the chrome-vanadium steels.)

to a competitive situation and less to the improvement in properties over other analyses. By the same token it should be possible to revive a considerable tonnage of the vanadium steels, either of the standardized analyses or any types growing out of our research efforts, by a substantial lowering of the cost of vanadium.* Discussion of the feasibility of such a cut in selling price is deferred to a later section of this report.

Use of Vanadium in Cast Iron: Not a great deal of information is available on the effect of vanadium in cast iron, since such use has not been commercialized because of cost considerations. Rather more research seems to have been done in England than in America. A number of references have been studied, and the definite conclusions justified that vanadium is beneficial in its effects on cast iron. It belongs to the hardening, strengthening, carbide-forming group rather than with the softening, graphitizing group—that is, it belongs with chromium rather than with silicon in its chief effects but with this difference: It is somewhat milder in action. Vanadium gives a denser,

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[fol. 249] stronger, finer-grained casting which has particular merit for certain applications. From one of the most comprehensive researches consulted,[1] the following conclusions were drawn:

"Type	% C	% Si	% Mn	% P	% S
A	3.55	1.46	0.42	0.077	0.022
B	3.7	2.7	0.56	0.11	0.04
C	2.5	2.5	0.55	0.07	0.038

The strength in compression of Alloy A was raised 40% by 0.5% vanadium, 10% by 2% nickel, and about 40% by the combined addition. In B the effects were less marked, but in C the compressive strength was increased about 30%. The bend strength of A was

* See Appendix for further opinions quoted on this subject.

[1] "Influence of Nickel and Vanadium on the Properties of Cast Iron." IRON AGE for March 26, 1931, p. 1028, which is an abstract of an article by J. Shallansonnet (Revue de Metallurgie, November 1930).

increased 30%, B 50%, and C 30%. Vanadium addition produced about 50% better resistance to shear, though the influence was less on B. Nickel diminished the effect of vanadium. Alloys of Type C containing vanadium with and without nickel, varied in hardness from 500 to 350 Brinell."

J. E. Hurst,[1] one of the leading British investigators, has done considerable work with vanadium in cast iron, and his conclusions are summarized as follows:

"As a result of tests made by one of the U.S.A. railroads, locomotive cylinders containing vanadium showed only microscopical wear after 200,000 miles running. Cylinders without vanadium additions showed appreciable wear—about 1/32% after 100,000 miles of service. Similar results have been reported in the case of large cylinders and liners in internal combustion engines.

Amount of Vanadium and Its Addition to Cast Iron: For ordinary purposes the amount of vanadium recommended to be added to cast iron is about 0.15%. It is generally recommended that the additions should be made by way of ferrovanadium to the molten metal

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[fol. 250] in the ladle. The ferrovanadium should preferably be ground to powder, in which form it can be conveniently added to the molten metal as it flows down the cupola spout. Pig irons are now available containing at least 0.50% vanadium, together with an approximately similar percentage of titanium. These pig irons offer a very convenient and cheaper method of obtaining vanadium in the castings. They can be used direct in the cupola without loss of vanadium. It is found that the titanium present prevents the loss of vanadium, itself undergoing a loss of about 20%."

In view of what is already definitely known regarding the effect of vanadium in cast iron, plus what can be rea-

[1] "Vanadium and Titanium in Cast Iron," Foundry Trade Journal, September 5, 1929, p. 173.

sonably predicted in the way of beneficial effects, it is believed that probably a considerable market can be worked up, especially in the light of the increasing popularity of "high test" cast irons. That vanadium has not been used heretofore does not seem to be so much a metallurgical question as a commercial one. Quite an opposite to the above views has been gathered from consultation with one of our metallurgical staff, who feels certain that equal results may be obtained much more cheaply by other alloy additions to cast iron: e.g., a balance of chromium and silicon.*

Use of Vanadium in Non-Ferrous Alloys: The use of vanadium in non-ferrous alloys is not a new idea, since there is extensive patent literature covering its addition to the copper-base, the aluminum-base, and to a lesser extent to the zinc-base alloys respectively. In general, the effects are similar to that of titanium in the copper-base alloys.

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[fol. 251] and a considerable tonnage of vanadium bronzes is sold. Here again, it might be confidently expected that price revisions would stimulate expansion of consumption. It is also obvious that new combinations replacing ferro-vanadium would need to be developed because of the undesirability of iron as a constituent of many of the non-ferrous alloys.

For reasons already pointed out, it is not possible to make a very definite monetary comparison between the relative values of two or more different steels because of their diverse qualities. Moreover, no matter how specific the comparison might be made, it would still be unconvincing to the metallurgist who might be prejudiced against the given steel; he would always be able to adduce arguments why he could not accept the conclusions, provided they were against his favorite steel. In spite of these handicaps, it is worth while to make some comparisons suggested in Table III, where a chrome-vanadium steel has been contrasted with one of its closest competitors—namely, chrome-molybdenum.

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* See Appendix for further views on this subject

The selling price of chrome-molybdenum (Series #4100) is 2.95c per lb. and for the chrome-vanadium (Series #6100) it is 3.65c per lb., or a differential of 0.70c per lb. against the vanadium—since the chromium content is the same in both steels. Deducting the base rate of 2.45c for all S.A.E. steels of these types, it is seen that the cost of vanadium must be made to shrink from 3.65 — 2.45 = 1.20c, to 0.70c, or a devaluation of $\frac{1.20 - 0.70}{1.20} \times 100 = 41.5 +\%$.

Since the grade used is what we market as "open hearth" which sells at $2.70 per lb. of contained vanadium, the

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[fol. 252] selling price of vanadium will have to be about $2.70 \times (100 - 41.5\%) = \$1.58$ per lb. to make it compete on an equal cost basis with molybdenum. It should be noted that this comparison is on a dollar-and-cents basis only, and that it disregards the arguments which might be advanced to the steel maker as to why he should use vanadium in his steel practice; enough has been shown to indicate that such arguments would always be weighed in the light of prejudice for or against.

We must again bring to notice the fact that a mere cataloging of the tensile qualities of a number of different steels is alone not sufficient to make a sale on the one with the most attractive characteristics as shown by laboratory tests. Many other factors are known to contribute to the popularity of a steel, as explained below:

> "The selection of the proper steel to be used in various parts of an aircraft engine involves more than the mere writing of an S.A.E. number on the drawing. Behind the selection of a steel for a particular purpose there are a number of considerations to be taken into account. These not only relate to the performance of the steel, but also to the methods of preparation which are necessary to put it into the proper condition to perform the functions demanded of it. The performance of steels is generally based on such properties as elastic limit, strength, hardness, ductility, fatigue, wearing quality, etc. However, these properties are only a few of those that contribute to the successful application

of metals. Due consideration must also be given to such factors as uniformity, depth of hardening, tendency to warp, hardening range, forgeability, machinability, etc. All of these properties are inherent in the alloy and contribute to its success or failure in performing the functions for which it is intended."

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[fol. 253] This feature of multi-sidedness in steel popularities has been set down here in more detail than might seem justified because it makes a point which will be brought up later—namely, that considerable effort will surely be required to "put across" vanadium even though the cost to the consumer is greatly lowered. Sales development propaganda based on the results of laboratory disclosures will most certainly have to be actively fostered. Among the possibilities are: Better heat treatment response from the vanadium-containing steels; better rolling qualities; better ingot surface, with attendant advantages to shipping costs; less cracking in rolling or forging; better mechanical properties, particularly in heavy sections, especially castings; cleaner steels; and others which might be mentioned. Some of the foregoing are known to be among the advantages occurring because of the presence of vanadium, while others are at best doubtful; the answers could be obtained by laboratory and plant experimentation.

Recognizing the fact that carbon-vanadium steel castings are widely used for heavy sections in the railroad field, some data are included on the mechanical properties of such steels. It can be assumed that the qualities particularly desired in this latter application are high strength with high elastic ratio (permitting reduction in design weight), together with toughness and resistance to shock. How these results have been obtained by the various analyses may be seen in Table IV, where it is evident that the nickel steel is more ductile but less strong than the vanadium steel, while both are superior to the plain carbon steel in strength

[1] "Quality Factors," Messrs. Gillett and Moore, Metals & Alloys, November 1930, p. 811

as well as ductility. It is interesting to note that the relative

[fol. 254] costs of the two steels are as follows:*

Grade of Steel	$ per Gross Ton	¢ per Lb
Plain carbon, or Class A	32.00	1.428
Carbon-vanadium, or Class B	70.00	3.125

It is thus apparent that between the two steels, A and B, which are in competition in the railroad field, there exists a differential of about 1.7¢ per lb. against the vanadium steel. In spite of this additional cost, there is an unknown tonnage of Class B steel sold; the present tonnage would almost certainly be increased by a lowering of the price of vanadium.

From the foregoing it may be concluded that at the price now being charged for vanadium, its use in steel is not likely to increase, and it seems reasonable that it will almost surely continue to decline for some applications. Also, it is apparent that the decline that has already come from the substitutions of other steels is not due to the lack of merit of the vanadium steels, but rather to the fact that the vanadium steels are so near parity with competing compositions that no preference is justified from an economic standpoint. By reason of this equality, it should be possible to greatly help vanadium sales by a cut in selling price.

* Personal communication from The Midvale Company.

Analyses of the Given Steels — %

	Cr-Mo	Cr-V	Cr	Cr-Ni
Carbon	0.260	0.320	0.310	0.320
Manganese	0.670	0.760	0.810	0.720
Sulphur	0.020	0.033	0.01[illegible]	0.012
Phosphorus	0.025	0.025	0.020	0.020
Chromium	0.800	1.030	0.910	0.500
Molybdenum	0.360	—	—	—
Vanadium	—	0.160	—	—
Nickel	—	—	—	1.270

Results on Tensile Tests on Above 2 In. Square Sections

Grade of Steel	Quench ° F.	Draw ° F.	Lb./Sq. In. Yield Point	Lb./Sq. In. Maximum Strength	% Elong.	% R.A.	Merit
Cr-Mo	1550-1600	1000	100500	122100	27.6	62.0	85.0
Cr-V	1550-1600	1000	104000	119000	24.2	61.5	70.3
Cr	1550-1600	1000	94575	118050	20.7	61.5	55.4
Cr-Ni	1475-1575	1000	90000	119000	19.9	62.5	57.9
Cr-Mo	1550-1600	1100	100500	117000	25.4	66.5	82.6
Cr-V	1550-1600	1100	110000	127000	24.5	59.0	71.5
Cr	1550-1600	1100	85750	105700	21.8	65.0	59.0
Cr-Ni	1475-1575	1100	89375	111550	21.8	65.0	62.5
Cr-Mo	1550-1600	1200	70000	100000	29.0	70.0	86.7
Cr-V	1550-1600	1200	107000	122000	23.4	59.0	65.1
Cr	1550-1600	1200	77075	99575	24.2	68.5	68.1
Cr-Ni	1475-1575	1200	78750	102000	25.5	68.7	73.4

• IRON AGE, Vol. 109, March 16, 1922, p. 725.

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MECHANICAL PROPERTIES OF SOME ALLOY CAST STEELS

Heat No.	% C	% Mn	% Si	% Cr	% Ni	% Mo	% V	Heat Treatment Quench °F	Heat Treatment Draw °F	Mechanical Properties Lb./Sq.In. Yield Point	Maximum Strength	% Elong. % 2 in.	R.A.	Brinell	Charpy	Merit Index
C-3	0.32	1.54	0.43	-	-	-	-	1650 Air	-	64250	110300	22.5	47.8	223	15.1	37.6
C-3A	0.32	1.54	0.43	-	-	-	-	" "	1250 Air	59750	98250	24.0	54.4	202	14.5	33.4
*7-5	0.33	0.03	0.40	0.80	-	-	-	" "	" "	53600	83400	18.5	26.0	217	-	18.4
*3-6	0.33	0.04	0.43	0.79	-	-	-	(1650 Air)	1200 "							
								(1550 ")	" "	67150	110250	17.0	25.0	217	-	22.5
3-3	0.47	0.74	0.45	0.99	1.44	-	-	Ditto	Ditto	83250	117000	18.0	42.0	241	-	32.6
3-20	0.34	1.03	0.40	0.71	1.22	0.32	-	1650 Air	1000 Air	145750	177000	13.5	35.0	307	9.2	33.5
***	0.33	0.77	0.32	-	-	-	0.18	Norm.	-	52300	88700	26.0	46.7	162	-	34.9

TABLE III

COMPARISON OF CR-VA WITH CR-MO STEEL TO ACCENT TOUGHNESS PROPERTIES

															El. Ratio		Merit
**4140	0.40	0.75	-	0.95	-	-	0.18	(Norm.	1700	900	140000	160000	13.0	47.0	293	87.50	36.8	103.25
**4140	0.40	0.75	-	0.95	-	0.20	-	Oil	1600)	900	146000	170000	11.0	40.0	352	85.9	45.6	83.30

* 7-5 refers to Zuege's steel #7 in Table 5; 3-6 to steel 3 in Table 6, etc.
** SAE specifications and properties are given as types.
*** Private communication from the New York Central Railroad.

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TABLE IV

ASSOCIATION OF AMERICAN RAILROADS SPECIFICATION FOR NORMALIZED AND TEMPERED STEEL FORGINGS

*Chemical Analysis**

Class	% C	% Mn	Max % P	Max. % S	Min. % Si	Min. % V	% Ni
A	0.40-0.55	0.60-0.90	0.045	0.05	0.15	—	—
B	0.40-0.55	0.70-0.95	0.045	0.05	0.15	0.15	—
C	0.20-0.27	0.75-0.95	0.045	0.05	0.15-0.35	—	2.50-3.00

* In Classes A and B, the chromium and nickel may not exceed 0.15% and 0.25% respectively. In Class C, the chromium may not exceed 0.15%.

Minimum Tensile Properties

Size Outside Diameter or Over All Thickness	Lb. Sq. In. Yield Point	Lb. Sq. In. Tensile Strength	% Elongation—2 In. Inverse Ratio	% Elongation—2 In. Not Under	% Reduction of Area Inverse Ratio	% Reduction of Area Not Under
Class A						
Not over 8 in., 4 in. max. wall	50000	88000	2,500,000 / ten. str.	25	3,650,000 / ten. str.	40
Over 8 to 12 in., 6 in. max. wall	48000	86000	2,100,000 / ten. str.	24	3,320,000 / ten. str.	38
Over 12 to 20 in., 10 in. max. wall	46000	84000	2,000,000 / ten. str.	23	3,100,000 / ten. str.	36
Class B						
Under 5 in.	60000	90000	—	24	—	48
5 to 9 in.	60000	90000	—	22	—	44
9 to 13 in.	58000	90000	—	21	—	42
Class C						
Under 8 in.	55000	80000	—	28	—	60
8 in. and over	55000	80000	—	28	—	55

Note: Additional specifications are given for grain size, and Steel B shows a much finer grain than Steel A.

TABLE V

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RELATIVE PRICES OF ALLOY STEELS*

Note: The open hearth grade base price is 2.45¢ per pound. The differential for alloy content of the given analysis is shown in Column A and the total or combined cost in Column B. Column C shows the relative order of cost.

SAE No.	Name	ANALYSIS % C	% Si	% Cr	% Mn	% Ni	% Mo	% V	A ¢/lb.	B ¢/lb.	C
2000	0.5 Nickel	-	0.15-0.30	-	0.30-0.60	0.40-0.60	-	-	0.25	2.70	14
2100	2.5 "	-	"	-	"	1.25-1.75	-	-	.55	3.00	10
2300	3.5 "	-	"	-	0.50-0.80	3.25-3.75	-	-	1.50	3.95	4
2500	5 "	-	"	-	0.30-0.60	4.75-5.25	-	-	2.25	4.70	3
3100	Nickel-Chromium	-	"	0.45-0.75	0.30-0.60	1.00-1.50	-	-	.55	3.00	10
3200	"	-	"	0.90-1.25	0.30-0.60	1.50-2.00	-	-	1.35	3.80	5
3300	"	-	"	1.25-1.75	0.30-0.60	3.25-3.75	-	-	3.80	6.25	1
3400	"	-	"	0.60-0.95	0.30-0.60	2.75-3.25	-	-	3.20	5.65	2
4100	Chrome-Molybdenum (0.15-0.25 Mo)	-	"	0.80-1.10	0.60-0.90	-	0.15-0.25	-	.50	2.95	11
4100	Chrome-Molybdenum (0.25-0.40 Mo)	-	"	0.80-1.10	0.60-0.90	-	0.25-0.40	-	.70	3.15	9
4600	Nickel-Molybdenum (0.20-0.30 Mo, 1.50-2.20 Ni)	-	"	-	0.40-0.70	1.65-2.00	0.20-0.30	-	1.05	3.50	7
5100	Chromium (0.60-0.90 Cr)	-	"	0.60-0.90	0.30-0.90	-	-	-	.35	2.80	13
5100	Chromium (0.80-1.10 Cr)	-	"	0.80-1.10	"	-	-	-	.45	2.90	12
5100	Chromium Spring	-	"	-	-	-	-	-	Base	2.45	15
6100	Chrome-Vanadium Bar	-	"	0.80-1.10	0.30-0.90	-	-	0.18	1.20	3.65	6
6100	Chrome-Vanadium Spring	-	-	-	-	-	-	-	.70	3.15	9
	Chrome-Nickel-Vanadium	-	-	-	-	-	-	-	1.50	3.95	4
	Carbon-Vanadium	-	-	-	-	-	-	-	.95	3.40	8

Note: The above prices are for hot-rolled steel bars. The usual differential for electric furnace steel is $0.80 higher per 100 lb. The above table is based on the price for bars which are classified as all sizes under 4x4 in. or equivalent. Slabs with a sectional area of 16 sq. in. and 2-1/2 in. thick or over are considered as billets which have a base price of $40 per gross ton, or $2.19 per 100 lb. Sections 4x4 in. to 10x10 in. or equivalent carry a gross ton price which is the net price for bars for the same analysis. Larger sizes carry extras.

* Iron Age 4-28-38.

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II. ECONOMICS OF A "COME-BACK" FOR VANADIUM. COST OF PRODUCTION AND PROBABLE MARKET VALUE AT THE STEEL MILL

Some general information respecting the economic phases of vanadium consumption in this country has a bearing on the subject of this report because this information will be helpful in reaching a conclusion as to policy questions. In general, a certain step which might be considered to involve some hazard might be followed if there were an assurance of very large possible gains, whereas the same step might not be taken were it shown that the most optimistic outcome as to the final monetary returns would not warrant disturbing other economic factors.

Fig. 1 charts the tonnage statistics of vanadium in the United States since 1914, as plotted by Mr. Judd of our Mining Department, from "Mineral Resources" and elsewhere. As previously noted, the World War and the Business Depression have introduced such vagaries that it is impossible to draw conclusions as to stabilized trends of consumption. The disturbances to normal business have further been augmented in effect as regards vanadium by the substitution of other and cheaper alloying elements, and it may indeed be questioned as to whether or not this latter encroachment has not been allowed to get out of control at this late date. Similar data have also been plotted by Mr. Judd for molybdenum over the same period (Fig. 2).

Statistics on the production of ore or even contained vanadium do not clearly show the amount of vanadium actually consumed by the whole country. At times, certain amounts of vanadium have been bought in the market and held for later sales; at other times, vanadium has been

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[fol. 260] produced above requirements and stored as oxide against future sales. Since we are not the only producers, nor have we heretofore been the chief ones, it is not accurate to base total consumption of past years on our own sales. Due to a change in conditions however, our chief

competitor and formerly the principal producer, has come to us, it is understood, for a very considerable portion of his oxide; what proportion this was in 1934 and since, the writer has not learned. From conversation with those best informed in our own company, this figure has been taken at about 7/10 of his requirements. For 1934, this would give us a close estimate of the business when equated to pounds of contained vanadium.

In answer to some specific inquiries, Mr. Judd has furnished his opinions based on studies of the statistics, and these are condensed as follows:

1—Heretofore the imports have supplied about 60% and domestic production about 40% of this country's vanadium requirements.

2—It will be noted from Fig. 1 that imports ceased in 1931 and resumed momentarily in 1934. This 1934 importation was a small lot of Peruvian ore, and it is thought that the Minaes Ragras district is out as an active source of supply.

3—It is believed that at present between 90 and 95% of the vanadium consumed in America goes into steel.

4—It is believed that for the seven years ending with 1933, the U. S. Vanadium Corporation sold about 25% of the ferrovanadium used in this country.

Some useful information can be obtained from Table VII which was arranged from data supplied by Mr. C. O. Jacoby and from other sources, and most of it is probably quite accurate; even where unsupported by figures, the

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[fol. 261] assumptions are probably close enough to serve adequately for present purposes.

TABLE VII

Sales by
U. S. Vanadium Corp. and ~~Electro~~ Metallurgical Co.,
By Years and Grades

	High Speed		Open Hearth		Special		
Year	Lb.	% Total	Lb.	% Total	Lb.	% Total	Total
1927	61,128	37.3	45,329	27.5	57,414	35.0	163,871
1928	90,039	18.3	312,874	63.4	89,519	18.2	492,432
1929	13,540	3.93	165,400	47.9	166,283	48.1	345,223
1930	3,772	2.57	79,641	54.2	63,944	43.5	147,357
1931	469	.3	101,580	64.8	56,205	35.4	158,254
1932	563	.9	43,578	66.5	21,606	32.8	65,747
1933	1,402	.5	208,930	76.6	61,897	22.8	272,229
1934	3,034	1.4	189,875*	67.5	24,722	11.3	217,631*
	173,947		1,147,207		541,590		1,862,744

* Includes 28,409 lb. of vanadium in Open Hearth Grade not of our own manufacture.

Note: Percentage calculations by Slide Rule.

The total vanadium sales by the United States Vanadium Corporation, in the form of ferrovanadium, for 1927 to 1934 inclusive, were 1,862,744 lb. To this must be added 1,071,718 lb. of vanadium oxide for the same period, which at 85% purity and equated to vanadium gives 510,037 lb. of vanadium, making a total of 2,372,781 lb. of vanadium. If this be 25% of the total for the period, then the country consumed 9,491,124 lb., or an average of 1,186,390 lb. per year. Because we may not be justified in saying that we sold about 25% of the United States requirements in any given year, it is not possible to say that Table VII is a sealed picture of the annual consumption, and the conclusions will have to be made on the basis of averages.

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TABLE VIII

Sales of Vanadium—Lb.

Year	A — Sales of V to 12 Chief Customers by grades				B	A + B
	High Speed	Open Hearth	Special	Total	Total of Sales	%
1930	—	54,157	32,737	86,894	147,357	59.0
1931	291	82,844	33,974	117,109	158,254	74.5
1932	328	33,878	12,818	47,024	66,747	71.5
1933	768	221,651	32,706	255,125	272,229	68.7
1934	1926	15,872	47,417	200,215	217,631	92.2

Table VIII presents a breakdown of the twelve principal U. S. Vanadium Corporation customers, showing their purchases by grades for the period 1930 to 1934 inclusive. It should be remembered that the specifications and uses of the grades are as follows:

Grade	Uses	Price per Lb.	ANALYSIS Max. % C	% Cr	% Mn	% V	Max. % Si
Open Hearth	Misc. engineering steels, S.A.E. type of steels, etc.	$2.70	3.00	—	—	35-40	8.00
Special	High speed steels	2.80	1.00	—	—	35-40	4.00
High Speed*	High speed steels	2.90	0.20	—	—	35-40	1.50

* Nearly obsolete.

"Special" has replaced "High Speed" for the requirements of all except one or two customers. Inspection of the records shows that the total number of customers by years is as follows:

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Year	No. of Customers
1930	54
1931	50
1932	45
1933	52
1934	41

It is apparent that no great change has occurred in the number of customers until 1934, when there is a substantial reduction—at least as far as we are concerned; this might or might not be due to a loss of business to a competitor. The quantity of metallic vanadium sold by us in 1934 (217,631 lb.) is lower than the average of the period 1927 to 1934 (233,468 lb.). This may be taken to indicate that nothing toward new applications has developed among the users.

Inspection of Table VIII shows that the twelve principal customers have consumed from 59.0 to 92.2% of our total sales of vanadium in the form of ferrovanadium.

From Table VII it is evident that the preponderant amount of vanadium is sold as "open hearth" grade, that it comprised about 61% of the total sales, and that it is on the ascendency, while "special" accounted for only about 28% of the sales and it is on the decline.

Taking the cost of V_2O_5 as 40¢ per lb.,[1] and allowing 2 lb. of V_2O_5 to produce 1 lb. of contained vanadium and 46¢ per lb. of vanadium[2] for the conversion charge, we got a production cost of 80¢ + 46¢ = $1.26 per lb. of vanadium. On the basis that our previous costs have been $1.70 per lb.

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[fol. 264] of vanadium and that we sold at $2.70 per lb., we could cut the price to $2.10 per lb. and still make the same *percentage* profit on costs as at the present schedule.

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[1] Letter from J. R. Van Fleet to C. E. MacQuigg, p. 53 of Appendix.

[2] Statement from E. M. Company to C. E. MacQuigg.

(This may be compared with the estimated reduction to $1.58 per lb. given on page 24 of this report.)

As against our position in the vanadium field, we must consider the position of the Vanadium Corporation of America. The data pertaining to this will be found in Mr. Van Fleet's letter to Mr. Haggerson, dated August 10, 1934, in the Appendix to this report. It is not believed that the conclusions therein which are unfavorable economically to the Vanadium Corporation of America, are to be modified in view of what has been learned since the letter was written.

As an indication of what business might be expected in case we decided to cut the price to such an extent that competition in this country were practically eliminated (or by other means such as agreements) and we sold all of the vanadium, three possible assumptions are presented:

I—We get all of the business in vanadium, but due to the recent trend and in spite of research and development it continues to decline, and therefore in a few years there is little demand for the metal. This assumption is rejected as most unlikely.

II—Business remains the same, but we produce practically all of the vanadium. On the basis of roughly 1,000,000 lb. of vanadium consumed annually, our profit at 84¢ ($2.10 — $1.26) would be $1,141,335 as against a past and present profit of around $297,199 per year ($1.00 × 297,199). From the gross profits, we would have to deduct the cost of research and development mentioned later—a total of some $300,000 over a period of three to five years. Even so, the margin of profit is quite attractive, say, in the neighborhood of $1,141,335 — $100,000 = $1,041,335 for three years, and after that time possibly larger, depending on the demand.

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III—Prices are cut still further so that our profit is only 50¢ per lb. (i.e., vanadium sells at $1.76). This reduction in price with the results of our research and development programs, so boosts the consump-

tion of vanadium that the sale is increased to 2,000,000 lb. per annum. The net profit is still the same as under Assumption II. Some additional advantages might be obtained, as for example those resulting from a new deoxidizer which might use vanadium in large quantities, and while we might make only 50¢ on the contained vanadium we would make a profit on the other elements. Patent protection on such an alloy would be highly advantageous if the alloy had exceptional merit; it is not fanciful to assume such possibilities.

Several conclusions are possible regarding the course that may be indicated by the facts noted in this report, and these may be summarized as follows:

Possible Action	*Favorable Results*	*Unfavorable Results*
I. Take no aggressive action, but continue to let V.C.A. dominate the market and we sell to them—predicated on a continuation of their patronage.	a. We take no risk on ill-will or a possible disturbance of the "status quo" in other fields. b. We will sell the bulk of the vanadium, with no stimulated competition.	a. There is no indication that such a policy will do other than kill all of the disappearing vanadium market, after which there will be no business for anyone. b. If matters are allowed to drift as at present, the vanadium business will continue to disappear and the V.C.A. will in time be defunct or at least moribund, thus forcing them into the hands of the present holders of a substantial portion of their bonded indebtedness, and the

Possible Action	*Favorable Results*	*Unfavorable Results*
		latter interests may be expected to make the most of the situation in the whole alloy field.

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II. We sell to V.C.A. but compel them to take an aggressive attitude toward stimulating the waning demand for vanadium.	a. Will avoid friction with the V.C.A., thus minimizing their entry into stronger competition with us in other alloys, e.g., silicon and chromium.	a. This ties our hands and prevents us from obtaining the bulk of the business through research and development.
	b. V.C.A. competition would be most serious in chromium, and it is doubtful if they could menace us without ample supplies of ores. Any mutual agreements would not be jeopardized by this arrangement.	
	c. The V.C.A. will probably be no sharper a competitor than at present and if they are absorbed by A.R.Co., they will most likely get "tough" anyway.	
III. We set our own lowered price and by an energetic campaign, we eliminate	a. We can dominate the market and obtain the bulk of the business by virtue of our better eco-	a. We give every cause for retaliation from V.C.A. and one of their large bondhold-

Possible Action	*Favorable Results*	*Unfavorable Results*
V.C.A. from the field.	nomic position and ore supplies. b. We have a free rein to develop new markets and peg the declining use of vanadium. c. We can eliminate V.C.A. as a desirable adjunct to our competitor in other fields.	ers who would seek every opportunity to thwart us in any possible way. b. Competition would be engendered needlessly because of the chance that vanadium as a major steel making element is done for.

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III. NEW POSSIBILITIES FOR EXPANDING THE MARKET IN METALLURGY AND FOR OTHER USES IN TECHNOLOGY. CONCLUSIONS AND RECOMMENDATIONS

1. Research

(a) Active experimentation is under way at Niagara today, looking toward the development of addition agents which will make use of vanadium, and more particularly tie it in with other of our products such as silicon and manganese in such a fashion as to augment the useful effects of all. There is sound metallurgical reasoning back of such researches, and success is confidently looked for.

(b) A process recently acquired by the Corporation concerns the use of vanadium for the penetrative dyeing of leather. By means of this process, the entire thickness of the leather is adequately colored. It applies particularly to the soft leathers used in shoe uppers, although it may possibly be expanded to the heavier grades. This is protected by what we judge to be a broad basic patent application which is prosecuted by us and which should enable us to control the sale of sodium vanadate in very large quantities for the carrying out of this process.

(c) The exploitation of vanadium in cast iron is a possibility which should not be lost sight of and one which we can develop to some extent through work with our own experimental cupola. This development would seem to depend more directly than others on the cost of vanadium. It hardly seems likely that any widespread applications to cast iron metallurgy are possible at the present cost of vanadium.

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2. Non-Ferrous Metallurgy

This is not cataloged under the heading of our own research, since it is believed that more rapid advance could be made by our staff working with the development departments of the manufacturers of non-ferrous alloys. When, as, and if the price of vanadium can be substantially reduced, then it would seem reasonable that we may catalyze the investigation of applications to bronzes and other non-ferrous alloys. It should be pointed out that beryllium, at a cost of several dollars per pound, is finding its use in copper alloys on the increase. This field looks attractive, at least.

3. Vanadium Catalysts

It is generally believed that vanadium affords the most efficient catalysts for a great number of chemical processes, and that the reason it is not more widely used is partly because of a patent situation, but chiefly because of its cost. The study of vanadium catalyst development was excluded from this report, but any substantial lowering of the selling price would be reflected in increased consumption of "red cake."

4. Metallic Vanadium

It is admitted that the properties and possible uses of metallic vanadium are too speculative for the purposes of this report, but it is felt that if an aggressive policy of development is going to be adopted with our production of vanadium, then a research on metallic vanadium is surely

justified. While the specific attributes of the metal in its pure form in a commercial environment can be guessed at only, it is undeniable that ample precedent exists from

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[fol. 269] other metals for saying that such a research is a very attractive gamble. Today the best-informed metallurgist would hesitate to deny the likelihood of unusual and valuable properties being found in, say, an alloy with 13% vanadium and 87% manganese or 87% vanadium and 13% chromium, or any one of many combinations of *pure* metals that might be made under the "rule of 13%."* Vanadium should be capable of production in a substantially pure state if sufficiently useful properties justify its commercial manufacture.

In conclusion, it is evident that from the research angle the Electro Metallurgical Company is in a most favorable position to further exploit vanadium. This is chiefly because of the Laboratory facilities, the experience of the staff trained in alloy steel metallurgy, and the contacts of the Sales-Development Department with the steel makers. Because of these facilities, it would seem that the likelihood of getting the most success from a development program is almost beyond doubt. On the other hand, such a research and development program would have to be carefully planned and energetically followed in all of its ramifications, such as (a) new deoxidizers and their applications in steel, (b) work to apply vanadium in cast iron metallurgy, (c) catalyst developments, (d) cooperative work on vanadium bronzes and light alloy metallurgy, and (e) miscellaneous uses as in the leather tanning industry, ceramics, etc. Such a program would easily require major efforts for three to five years as a minimum, and for the metallurgical research alone would cost from $50,000 to $100,000 per year, or a total of $300,000. The first 1 or 1½ years might be expected to reach the top figure if the program

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*Reference is made here to the unique properties that have characterized iron with 13% silicon (Duriron), iron with 13% chromium, iron with 13% manganese (Hadfield's austenitic steel).

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[fol. 270] be intensively pursued; the later periods of the work would likely not exceed the smaller amount. The reason for this rather large expenditure to extend the use of an element already established is due to the fact that the users, because of its high cost, have learned to depend on satisfactory substitutes (notably molybdenum) and it would be necessary to overcome the present momentum in the direction away from the use of vanadium. One effective way to swing the tide back toward vanadium would be by showing the great superiority of new combinations.

In spite of some adverse factors, it appears that the hope of success is sufficient to warrant the undertaking of placing a cheapened vanadium in much greater use, and unless totally unforeseen developments occur it does not seem too much to expect the Research Department to practically assure a successful outcome to such a program. However, as soon as the logical price reduction is decided upon but before final decision is made on the steps to be taken, some time should be given the Research and Sales-Development Departments to consider and present a joint program for approval.

Conclusions

1. Unless we are entirely misled by our own figures, we seem to be in the key position in the vanadium business in America, and are therefore in a position to dominate the situation.

2. The metallurgical use of vanadium has been declining for several years and probably will continue to do so because of the present cost to the user.

3. The declining use could be stayed and probably a greatly increased consumption could be built up by research and development work.

4. It is believed that the metallurgical use of vanadium could be revived possibly up to between ¼ and ½

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[fol. 271] again the magnitude of the present consumption in this country. This would require an in-

tensive program of research and development work which might cost from $200,000 to $300,000.

5. The total consumption of vanadium for the country, based on a fair approach to normal business, would be about 1,300,000 lb. per year, and this might be pushed up to a consumption of 1,800,000 lb. per annum, or more. The profits on this business on the present basis of calculation would be between 50 and 75¢ per lb., provided the price schedules suggested are put into effect. The total pounds sold by the U. S. Vanadium Corporation under such circumstances would be an indeterminate matter of competition.

Recommendations

That a decision be made respecting the three possible courses suggested, and in any event an arrangement effected whereby our supplies of vanadium can be successfully exploited.

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IV. APPENDIX. COLLATERAL INFORMATION

In view of their opportunities to obtain current information on both the metallurgical and the commercial angles of the vanadium question, the opinion and advice of Messrs. DuTot, Good, Smith and Crafts have been obtained in personal conferences, and the writer wishes to express his indebtedness to these gentlemen who have assisted him with their counsel. Their collective opinions may be summarized as follows:

Vanadium has at present three more-or-less assured fields of commercial importance. By "assured" is meant that the effects of vanadium are so beneficial as to be axiomatic, and the regard in which it is held is so high that it would take much effort to dislodge it from its position. These applications are:

(a) High Speed Steels

This subject has already been touched upon, and the information received from the conferences with our field staff

merely confirmed what was generally known. Incidentally, it is understood that Mr. Clarage recently told one of our men that their research work had demonstrated the exceptionally high quality of the molybdenum high speed steels (Watertown Arsenal type), and his tip to Electro Metallurgical Company was "to locate some good supplies of molybdenum ores!" The molybdenum high speed steels also use vanadium and have analyses in the following ranges:

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	MoTung	MoMax
Carbon	0.76%	0.78%
Manganese	0.30	—
Silicon	0.30	—
Tungsten	1.60	2.06
Molybdenum	7.90	8.18
Chromium	3.85	5.25
Vanadium	1.10	1.01

(b) High Tensile Forgings and Castings

These have already been referred to, and a class example given as the railroad heavy forgings and castings. American Steel Foundries are using vanadium in their medium-manganese steel castings, and Mr. Hamilton, the Metallurgist, is convinced of the superiority of their analysis.

(c) Small Additions to Sundry Steels

There is a widespread use of vanadium as an addition to quality steels of diverse analyses; this is not large as to tonnage, but is rather general and is the field referred to by Mr. Byrd (page 11). The additions are small so that residual vanadium is not more than 0.03 to 0.05%, but it is generally conceded that these additions represent the compromise between the cost of alloy and beneficiation of the steel through its presence.

With respect to cast iron the outlook that might be obtained from a study of the very meager literature is not justified when it comes to actual shop tests. Mr. E. K. Smith believes that any improvement in the properties of cast iron could be obtained by other addition agents which

we also make and at a much lower cost; e.g., silicon and chromium. The latter two in balanced proportions would, in Mr. Smith's opinion, enhance the quality of cast iron fully as much as would vanadium.

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[fol. 274] It is the writer's belief that the extent to which vanadium usage can be expanded in the cast iron field is dependent chiefly on the amount the price can be lowered. With reductions of substantial nature, say, 35 to 50%, it seems probable that vanadium may take its place *along with* chromium and silicon additions in the production of the so-called high test cast iron.

ELECTRO METALLURGICAL CO.
NEW YORK

Mr. F. H. Haggerson
Room 1714

April 10, 1935

Subject: Survey of Alloy Steels Used by Automobile Companies

Dear Mr. Haggerson:

This report indicates that molybdenum is making greater inroads on nickel than on chromium. Vanadium is certainly losing out. At our present price, 0.15 to 0.18% vanadium adds $15.40 per net ton to the mill cost of steel. One per cent. of chromium adds about $3.00 per ton to mill cost. Molybdenum, 0.15% to 0.25%, adds about $3.50 per net ton to mill cost.

To make vanadium compete with molybdenum on a cost basis, our price would have to be reduced from the present value, $2.70 per lb. to about 60¢ per lb. contained.

I plan to bring this up for discussion at our next Research and Development meeting. We may be able to develop a steel with good properties with 1.00% chromium and about 0.10% vanadium. We might be able to create an interest in this if the present price of vanadium were cut in half.

Pardon my marking the report in pencil. Thought it would facilitate comparing the different S.A.E. numbers.

Very truly yours,

WJP-EVL (signed) W. J. PRIESTLEY

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[fol. 275]

SURVEY OF ALLOY STEELS USED BY AUTOMOBILE COMPANIES

Approximately 300,000 tons of alloy ingots were consumed in 1934 in the production of 2,778,739 passenger cars and trucks. This year production of automobiles is running about 40% higher, so that the tonnage of alloy steel ingots for this industry should exceed 400,000 tons and ferro-alloy sales for this purpose should be higher than in 1934 but not in the same proportion on account of the change in grades of alloy steel being applied to the various parts of the cars.

In respect to the consumption of ferrochrome in particular, sufficient evidence was obtained to warrant the belief that this alloy will continue in popularity despite the present attitude of the Chrysler Corporation towards carbon-molybdenum steels as the following will show a definite trend in favor of cheaper steels, most of which contain chromium.

Recent advances in the art of steel making have permitted progressive steel makers to control grain size which exerts a powerful influence on machinability, depth hardening, impact resistance and forgeability. Through a combination of grain size control and alloy additions, the properties of the various alloy steels have been noticeably improved to such an extent that nickel, an element frequently used to impart toughness, is not so essential as formerly. Chromium, however, is required for high strength, although molybdenum occupies a definite position in the trade today. Mr. Ferrell of Timken advised me that the addition of a small amount (0.25%) of chromium to Wills' carbon-molybdenum steel would further improve it.

While passenger cars are being constructed of cheaper and better-made steel, truck production follows a reverse trend; i.e., higher percentages of alloying elements for further improvement in strength, along with similar rigid requirements on grain size, are in demand because truck operators exercise no discretion when loading; consequently trucks overloaded 500 to 1000% fail, and criticism of the builder results.

As indicated in my preliminary report, the Chrysler organization is enthusiastic over Mola, a fine-grained abnormal molybdenum-bearing carbon steel, and anyone listening to their account of its marvelous properties without talking to others who may be interested will probably come away with a gloomy opinion of other steels made with nickel, chromium or vanadium. However, it is particularly interesting to us to know that (1) other automobile metallurgists show no enthusiasm, although they are interested; (2) steel companies are not anxious to push this grade; (3) the sales price will have to be increased to permit a profit for the steel company; and (4) Dodge faces a $100,000 outlay for new heat-treating equipment to handle the steel.

It is also true that the claims made for the properties of Mola steel by Wills and McCleary with respect to surface

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[fol. 276] decarburization, better finish, uniformity, etc., are the result of first, selection of the most suitable heat, and second, special care by all mill operators. Whereas Wills looks upon this steel as ordinary carbon steel plus 0.25% molybdenum, the steel mill operator who made similar steel years ago (see Carnegie Handbook) considers it a very difficult proposition.

(From "The Making, Shaping and Treating of Steel." In the hot working of this steel no benefits that can be attributed to the presence of molybdenum are observed, and many surface defects common in working plain carbon steel may appear in the molybdenum steel, also.)

The Mola steel is made today by treating it in the ladle with upwards of 1½ lb. of aluminum per ton. Such practices are not conducive to the production of clean steel but are

helpful to bloom surfaces and aid in the formation of fine-grained structures.

Mr. McCleary claimed that 1 in. round Mola steel samples quenched and drawn to a tensile strength of 88,000 lb. per sq. in. could be twisted 525° before rupture, while the steel formerly used for rear axles had a maximum twist angle of rupture of 320°. He claimed further that leaf springs of "satisfactory" Mola steel could be bent 135° before failure even though 444 Brinell, while other steel at the same hardness could be broken at 45°.

Republic Steel Corporation metallurgists are pushing chromium and chromium-nickel steels of the #3100 and #5100 type. The Research Department has built a testing device that simulates transmission gear conditions, and they are testing present standard grades of alloy steels to determine, if possible, the most suitable grade of steel for gear units.

Timken developed and are promoting a nickel-molybdenum steel with 0.55 to 0.65% chromium, similar to S.A.E. #4615, for all highly stressed parts, and have considerable confidence in its quality.

Pittsburgh Crucible are devoting particular attention to the production of higher manganese steels containing from 1.00 to 2.50% manganese.

The U. S. Steel Corporation metallurgists favor carbon steel with grain size control, but make and study the production of alloy steels with a view towards furnishing better quality and service than their competitors.

Jones & Laughlin and Great Lakes favor high manganese (1.25 to 2.50% manganese) with and without sulphur for machinability, but make some other grades depending on mill equipment; for instance, Great Lakes have produced large tonnages of chromium steel for Ford leaf springs.

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[fol. 277]

Grades of Steel Used for Important Parts, with Comments

Crankshaft

Ten years ago alloyed steel was used for this important part of the engine; today practically all crankshafts are forged from S.A.E. #1045 (see attached chart of S.A.E.

grades). Ford used a copper chrome-iron steel shaft that serves the purpose satisfactorily.

Carbon	1.25–1.40%
Manganese	0.50–0.60
Silicon	1.90–2.10
Chromium	0.35–0.40
Copper	2.50–2.75
Phosphorus	0.10 max.
Sulphur	0.06 "

Leaf Springs

With the exception of several automobile makers, most leaf springs are made of silico-manganese (S.A.E. =9255 or =9260) steel. Front springs of trucks have been principally chrome-vanadium (=6150), but Chevrolet is experimenting with chromium steel (=5150) on all cars. Ford and Hupp use =5150; Chrysler is using Mola.

The leaf spring plants, Mather and Standard, prefer =5150 to =9255 on account of greater uniformity of hardness after heat treatment. Standard Steel Spring report 10 to 15% production of chromium steel during past six months, whereas previous to that time the silico-manganese and carbon steels were the only grades used.

Republic Steel Corporation find less demand for silico-manganese spring steel.

Illinois Steel Company would like to add 0.25 to 0.50% chromium to thick leaf springs of silico-manganese type to obtain better physical properties, but buyers object to any increase in cost.

Coil springs have been made of the same steel as leaf springs depending on the experience of the automobile company.

Connecting Rods

Oldsmobile and LaSalle use =1340, Cadillac =4140, all others use S.A.E. =1035 or =1040. The carbon steel is quenched and drawn, the =1340 normalized. Any reduction in heat treating costs is very attractive to automobile makers.

Transmission Gears

Principal changes: Chevrolet planning to supplant
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[fol. 278] #6150 with #5150; Hudson-Terraplane has substituted #4640 for #3440; Hupmobile changed from #5150 to #4640.

Ford continues in the use of chromium and chrome-vanadium; Wandersee has no confidence in nickel-molybdenum steel for this highly important part. Pontiac favors #3145 over #2345.

Buses and trucks have been built with carburized transmission gears and as noted above, passenger cars of oil-hardening types. A difference of opinion between these two grades will always exist, the cost of heat treating a 0.40 or 0.45% carbon steel is far less than carburizing a 0.15 or 0.20% carbon nickel-molybdenum steel. The surface hardness of carburized steel will measure 60 Rockwell C, with a core hardness of 30 on #4615 or 40 on #2512, but 45 on #4615 plus 0.55% chromium. Oil-hardened gears have a surface hardness of 50 to 55 Rockwell C.

Between 3½% nickel (#2300) and 1½% nickel-molybdenum (#4600), the #2300 is more difficult to machine than #4600, even though the latter is fine-grained. Higher nickel steels show additional resistance to machining over 3½% nickel steels.

Differential Gears

These parts suffer as much abuse in the hands of the average driver as transmission gears, and the selection of steel depends on design with respect to unit pressures and the power plant; however, there is a preference for carburized ring gears with oil-hardened pinions and side gears.

Here we find several changes—mainly, towards nickel-molybdenum. Olds changed from 5% nickel (#2512) to 1½% nickel-molybdenum (4615); Hupp from 3½% nickel (#2315) to 1½% nickel-molybdenum (#4615); Nash continues to use oil-hardened #2350 and specifies electric furnace steel.

Several companies are beginning to question the advertised claims for electric furnace steel superiority.

Steering Knuckles, Pins, Etc.

Olds, Buick, LaSalle and Cadillac favor the use of 1.60 to 1.90% or 1.35 to 1.65% manganese steels, designing the part a little heavier than if higher strength steels were used.

Ford favors straight chromium steel; Hupp changed from chromium-nickel (=3100) to chrome-molybdenum (=4130); Hudson made the same change; Chrysler plans to use Mola.

Camshafts

Wherever possible I believe chromium-bearing chilled cast iron has been used; however, on some automobiles a

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[fol. 279] gear is located in the center of this shaft which prohibits the use of chilled iron. In other cars carburized carbon steel =1015 or =1020 is used. There is not much difference in cost according to Mr. Smart of Pontiac.

Axle Shafts

Front I-beam axles are made of carbon steel (=1040) Chevrolet, nickel-molybdenum (=3140) Pontiac, high manganese (=1300) Olds, but Hudson substituted chrome-molybdenum (=4140) for chromium-nickel (=3140), while Ford uses chromium steel.

Rear axles are made of =3140, =4615 and Mola for Chevrolet, Olds and Chrysler respectively.

International Harvester trucks are using chromium-nickel-molybdenum drive shafts in place of =4640 and =3140; they also are changing from 1½% nickel-molybdenum to 3½% nickel or 5% nickel steel gears for higher strength.

Wrist-pins

Ford uses a low chromium (Type N) cyanided steel, Olds and Buick a =1300 steel with high sulphur, Cadillac and LaSalle a 5% nickel carburized part. Hudson changed from =2315 to =4615, Hupp from =6115 to X-1315; Chevrolet uses =5100, and Chrysler 3½ and 5% nickel.

Exhaust Valves

Practically all these parts contain substantial percentages of chromium to resist the corroding influence of the hot gases. Hupp, for instance, buy their valves from Wilcox who furnish steel containing 14% chromium, 14% nickel and 3% tungsten.

Body Bolts, Studs, Spring Clips, Etc.

Highly stressed bolts are either chromium-nickel, high manganese or nickel-molybdenum depending on local opinion, advice from steel supplier and machinability.

Small Forgings, Etc.

Links in the front and knee action design, spline shafts and other less highly stressed parts are made of practically the same steel and for the same reasons given in the preceding paragraph.

Spicer Manufacturing Company considers Timken's nickel-molybdenum plus 0.55% chromium steel one of the best they have ever used, and use more of this grade than any other for transmission gears, differentials, etc., that are furnished in the assembled condition to passenger car builders.

Much of the above information was obtained only by advising those interviewed that the information would not be

[fol. 280] published or broadcast. A number of visits proved very interesting and I was pleased at the cordial reception in nearly every instance. I believe this may be credited to the popularity of Electromet alloys.

(signed) R. C. Good

RCG:S

4-5-35

TABLE VIa

Automobile	Present Production per week.	Crankshaft	Front Spring	Rear Spring	Connecting Rod	Transmission Gears	Differential Gears	Steering Parts	Wrist-Pin	Axle Shaft	Camshaft	Metallurgist
Auburn	200	1045	9260	9260	1035							Thomas
Chevrolet	25000	1045	5150	5150	1035	5150	4815	5130	5150	1040 5140		Mann, E.O.
Pontiac	4000	1045	5150	5150	1035	5145	4815	1300		5140	1020	Smart, C.M.
Olds	4200	1045	9260	9255	1340	5150	4615	1340	x1314	1340 4615		Hathoway, Crawford
Buick	1500	1045	9260	9255	1040	5150	4615A	1340	1115	1300		Schenck, R.B.
LaSalle	500	1045	9255	9255	1340	4620	4620	1340	2512		1015	Danse
Cadillac	200	1045	9255	9255	4140	4620	x4620A	1340	2512		1015	Danse
All Chrysler	20000	1045	M	M	1035	M	M	M	2312 2512	M		McCleary
Reo	550	1045	9255	9255		4615	4615					Coates, J.
Hudson	2500	1045	9255	9255	1045	4640	4620	4130	4615	4140		Cagnon, J.C.
Packard	400	1045	No change from last year									Graves
Hupp	450	1045	5150	5150	1035	4640	4615	4130	x1315	4630 4140	1020	Watson
Studebaker	1500	1040	9255	9255	1035 4130	4620 5100	4615 4620	4140 4615	4615	1040 4130	1020	Harris, W.J.
Nash	1350	1040	9260	9260		4615	2360	5130	1015	1035	1020	Anglim
Ford	37500	Cast	5150	5150	1040	6115	6115 5150	5130	M	5140		Vandersee, J.
Overland	400	1040	5150	5150	1040	5150	5115 2315	1040 4130	1020	1040 4130	1020	Weir, Sam

International Harvester trucks using CrNiMo steel for drive shafts in place of CrNi formerly; 3-1/2 Ni in place of CrNi; CrNi in place of C steel. Caterpillar Tractor changing from elec. to O.H. #2345 for all gears and heavy shafts; links, rollers made of #1045; studs and bolts of #3135 and 10.30.90. Use of Cor-Ten steel growing.

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[fol. 281]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 48 FOR IDENTIFICATION

F. P. GORMELY'S OFFICE.

NEW YORK CITY

July 29, 1935

Mr. Blair Burwell,
United States Vanadium Corporation,
Rifle, Colorado.

Vanadium Situation

Mr. C. E. MacQuigg.
Mr. J. M. Price.
Mr. W. J. Priestley.
Mr. J. R. Van Fleet.

Dear Mr. Burwell:

Confirming our talk and Mr. MacQuigg's letter to me of July 22nd, copy to you, in which he confirms his talk with you on Saturday, July 20th, I understand that you have some slants on the Vanadium situation which you think should be added to Mr. MacQuigg's report of July 8th, before we make a definite decision as to what our future policy should be in an attempt to revive the Vanadium business or, at least, hold our present position.

With this in mind and because vacations are on now, I am suggesting that you and Mr. Van Fleet collaborate in a report commenting on Mr. MacQuigg's report and giving any additional ideas you may have which should be incorporated therein or any criticisms you may have as to his findings or suggestions.

We will all get together on this matter about the middle of September to decide on what our policy in the Vanadium situation should be.

Very truly yours,

FPGormely/D

B. B.

[Handwritten notation—sent copy to Mr. Van Fleet]

[fol. 282]

COPY

U. S. Vanadium Corp.

Rifle, Colorado.

September 15, 1935.

Mr. J. R. Van Fleet,
New York City.

VANADIUM REPORT.

Dear Mr. Van Fleet:

Mr. C. E. MacQuigg has well covered the vanadium situation in his report. The field covered is, by necessity, limited to markets and research in connection with the sales of vanadium. His conclusions and suggested policies such as price reductions to stabilize the present market and research development to extend the consumption of vanadium are well supported by his report.

My letter to you is mainly concerned with our position to produce vanadium in the future in such quantities as may be required by fundamental remedies in the situation. We may assume that the vanadium sitation is not to remain in the present condition. Either it will decline to a self-sustaining minimum which would deliver the market to the producer able to maintain small production and low cost, or price remedies will shift the business to the low cost producers, or new developments would give us a larger share of an increased industry.

Our ability to produce vanadium in the past has had little relationship to our ability to dispose of our production. The initial market of the Rifle operation was inherited from the Standard Chemical Company, and the Vanadium Corporation has held, from the momentum of its operation in Peru, the largest portion of the market. We know that the high grade ores from Peru are exhausted and the present reserves are in marginal ore requiring a treatment plant at costs approximately equal to the cost of the oxide they are now obtaining from us. It would be expensive for the Vanadium to resume production from Peru and they could not meet price competition and price reductions necessary to stabilize the market. Therefore, it would ap-

pear that our position to sell our future production is materially improved and may be developed in line with our strong position in ores in this country.

From our Rifle operation we still have stocks of vanadium produced at favorable prices. Among our other assets is the successful experience in development of sandstone ores, their treatment and large reserves of ore which are adapted to low cost production. But it must be emphasized that this vanadium is still in the ground in a region remote from transportation, and that the initial production of a new unit for future supply is limited, by engineering reasons, to approximately one-half of the present depressed market.

[fol. 283] No small part of the results of past operations has been due to the continued efforts of a well-developed organization. It resulted in the exploitation of the Rifle deposit in face of the adverse opinion of the Vanadium Corporation as to the economic value of that ore. A point of weakness in our present situation is the fact that only a skeleton exists of that organization and in a new area we must again start to train operators and create a machine for production. The proper time allowance for this build-up is essential and must be considered in any plans for vanadium.

The construction of a single initial unit will consume 56-man shifts for nine months. Three months of the year are unfavorable for construction. At the start we do not have water supply or facilities for 56 men so that the rate of construction must be small in the beginning while this is being provided. In the early months of the year, roads, and especially new roads unpacked by travel, make transportation difficult to and from the railroad. For these reasons we estimate that, in case production will be required in the end of 1936, or early in 1937, then we should start this Fall on water supply and other preliminary work.

Our plans are designed for an initial production of about 600,000 pounds of V_2O_5 yearly. In this unit we will introduce such process improvements as have been developed to the plant stage and obtain a smooth operation and basis

for further expansion if required. The largest element of cost will be in mining and the largest possibility of cost reduction. The nature of the ore deposits makes necessary the development and preparation of a large number of places for mining in advance of production and by the early initiation of exploratory work and diamond drilling in mineral areas we can establish ourselves on a safe basis to supply an increased demand with low costs. A budget for this work is included in our estimated costs. To attempt an enlarged output on short notice would be to seriously handicap our production costs.

I would recommend that we cooperate closely with the Research Department in the development of non-ferrous salts directly from our plant solutions. The possible market in dyes, and in other non-ferrous uses can be materially assisted in its cost side if we can make the required salts simply and easily from the first plant solutions without the cost of precipitation and other steps now used. For example, we have the possibility of making metavanadate of approximately 99.5 purity directly from leach solutions by building up our solution strength and precipitating with ammonium chloride. In red cake we have a lower cost possibility and can continue our present high quality product with much economy. Work should be done on uranium salts, and the production of other byproducts which offer the opportunity of substantial return. I believe that the Research Department can assist us in research in connection with plant improvements looking towards lower costs.

The report by Mr. MacQuigg gives the basis of the market situation and it seems to me that the policy now indicated is largely a question of the timing of essential moves such as are required to maintain the market and to place us in a condition to produce vanadium in the future.

Very truly yours,

/s/ Blair Burwell
Blair Burwell

[fol. 284]

[Handwritten notation—Return—J R van Fleet.]

General Mining Department,

New York City.
September 23, 1935.

Mr. F. H. Haggerson,
Room 1715, Building.

VANADIUM SITUATION

Messrs. F. P. Gormely,
W. H. Sneath,
J. M. Price,
C. E. MacQuigg.

Dear Mr. Haggerson:

On September 1, 1935, we had in stock 1,812,127 pounds V_2O_5 as fused vanadium oxide, and an equivalent of 600,000 pounds V_2O_5 in ferro-vanadium at the various plants, making a total inventory of 2,412,127 pounds V_2O_5 available on that date.

Place	Lbs. V in FeV	Lbs. V_2O_5
Rifle		1,054,958
Columbiana	290,026	97,157
Niagara	14,397	660,012
Welland	10,951	
	315,374	1,812,127
Equivalent V_2O_5 in FeV		600,000
Total V_2O_5 lbs.—9/1/35		2,412,127

Vanadium sales for the first eight months of 1935 have amounted to 138,138 lbs. V contained in FeV and 192,814 lbs. V_2O_5 in fused oxide and other products. The Vanadium Corporation of America took 166,073 lbs. of the V_2O_5 in fused oxide and the balance or 26,771 lbs. V_2O_5 was sold as red cake and ammonium metavanadate. Equivalent V_2O_5 up to September 1, 1935 sold is 455,300 lbs.

It is estimated that vanadium sales for the last four months of 1935 will average about 21,000 lbs. V in FeV per month. Also, 84,000 lbs. V_2O_5 will be shipped to the Vanadium Corporation of America, and about 15,000 lbs. V_2O_5 in the other products sold. The equivalent V_2O_5 for the last four months sales is estimated at 258,600 lbs. and the remaining stock of V_2O_5 on hand at the end of the year will be 1,698,227 pounds V_2O_5 at all places and in all products.

Tabulated, the 1935 sales V contained in FeV and V_2O_5 appears as under, with the last four (4) months estimated:

[fol. 285]

1935	Lbs. V in FeV	Lbs. V_2O_5
January	23,558	2,305
February	7,347	1,015
March	15,332	5,915
April	14,985	5,014
May	19,539	6,775
June	16,903	532
July	19,215	87,655
August	21,259	83,603
8 months	138,138	192,814
Last 4 "	84,000	99,000
	222,138	291,814
Equivalent V_2O_5 in FeV		422,086
Total lbs. V_2O_5		713,900

On January 1, 1936 we should have available 2,153,527 lbs. V_2O_5. It must be remembered that approximately 600,000 lbs. V_2O_5 is always tied up in manufactured ferro-vanadium and that the plant requirements are approximately 500,000 lbs. V_2O_5 yearly, should sales continue about as experienced over the past three years and the usual stocks of FeV maintained. These stocks of finished FeV amount to approximately 300,000 lbs. contained V and is a little over a year's sales' requirements of FeV.

Available Sept. 1, 1935	2,412,127	lbs. V_2O_5
Sales last 4 months 1935	258,600	"
Available Jan. 1, 1936	2,153,527	"
V_2O_5 in FeV stocks	600,000	"
	1,553,527	"
Plant requirements 1936	500,000	"
Available for sales	1,053,527	" "

It may be seen from the above that there is only 1,000,000 lbs. V_2O_5 available for sales until more V_2O_5 is produced. It may also, be seen that with sales maintained at the present level, all of our stocks of V_2O_5 will have been exhausted by the end of 1938, provided no fused oxide is sold. Being so limited in the amount of V_2O_5 available for sales' purposes, we cannot take advantage of attractive business should it be offered. If we accepted 1,000,000 lbs. of fused oxide orders from the Vanadium Corporation of America or from Europe, we would be out of the vanadium business by the end of 1937.

Regardless of the substitution of other metals for vanadium in engineering steels, sales of FeV have remained about the same. It is apparent that the falling off in engineering steels is made up by the general improvement [fol. 286] in the steel business. Sales of V in FeV for the past nine (9) years are listed below, the sales for the last four (4) months of 1935 being estimated:

Year	Lbs. V in FeV	Equiv. lbs. V_2O_5
1927	163,870	311,350
1928	492,500	935,750
1929	345,220	655,920
1930	148,400	281,960
1931	158,710	301,550
1932	70,300	133,570
1933	286,410	544,180
1934	227,600	432,450
1935	222,140	422,100
	2,115,150	4,018,830

It safely may be assumed that the vanadium sales for 1936 will, at least, equal 1935. Records seem to indicate that we enjoy about 30% of the vanadium business, in which case the Vanadium Corporation will require about 1,000,000 lbs. V_2O_5 for their 1936 business. We should sell them vanadic acid at a price low enough so that a source of supply elsewhere will not look attractive. I am quite certain that acid from the Peruvian mine costs more than 80 cents per pound V_2O_5, but it certainly isn't less than 75 cents.

It may be realized from the above that time is now an important feature of our vanadium situation. It will require a year's time in which to construct the plant in the Paradox Valley and get it into production. If this new plant is to be in production the last of 1936, some of the preparatory work should be started as soon as possible.

The new plant at Uravan—which the Paradox Plant site has been named, and which will be the name of the postoffice to be opened there—is estimated to cost $366,000. During the Summer and Fall of 1934 the salt works—which is to be a part of any operation in the Paradox, was installed, and the power canal was cleaned out and repaired, with an expenditure of approximately $16,000.

There is yet considerable preliminary work which can be done to advantage before the actual construction of the plant shall commence. During the Winter and Spring the weather is often bad in this section and would interfere with and make outside construction more costly. The work that can be done this Fall to advantage, would consist of repairing the buildings on the plant site for the housing of construction forces, putting in the water supply, finishing the re-instatement of the power plant, and moving from Rifle compressors and other equipment necessary for construction purposes. Also, there is a certain amount of [fol. 287] underground work in the mine which can be done to advantage with a small crew, preparatory to mining the ore bodies which have already been developed. The design for the construction of the plant calls for underground ore bins. The location for the plant is such that these underground ore bins can be made much larger and cheaper than bins constructed from timber or steel.

It is recommended that we proceed with this preparatory work this Fall and Winter with an expenditure not to exceed $5,000 per month. There will be no additional overhead on this work, as we have the overhead anyway. With this work completed we will then be all ready for actual construction in the early Spring of 1936, and can have the first unit in operation by the end of 1936.

A single roaster plant on the Paradox ore will produce from 600,000 to 750,000 pounds of V_2O_5 yearly, which will take care of our own needs and accumulate some excess. This capacity can rapidly be increased by the addition of roaster units. The plant has been designed to allow for expansion in case increased capacity is necessary.

In Mr. MacQuigg's research report of June 1935, his conclusion points out that it would, probably, be advisable to reduce the price of vanadium products to the trade. With the new plant in operation in the Paradox Valley the price can be considerably reduced and still make as much profit as we made on the Rifle production.

We took over the United States Vanadium Company on January 1, 1927, paying therefore in cash and securities a total value of $2,275,000. In 1927 the Rifle property was set up on the books of the United States Vanadium Corporation as follows:

Real Estate & Equipment	—	$ 528,202.89
Mine	—	1,539,395.31
Discovered Mine	—	924,480.00
Total Property Set-Up	—	$2,992,078.20

This entire set-up was depreciated and depleted with the exception of $25,000 on the production at Rifle, amounting to approximately, 7,000,000 pounds V_2O_5. The $25,000 consists of $21,000 real estate and equipment at Columbiana, and $4,000 real estate at Rifle. This write-off amounted to 42¢ per pound on the production at Rifle; the average production costs at Rifle Plant were 38¢ per pound. The write-off on the Rifle production was not uniform over the

years, and varied considerably, but the average cost of the V_2O_5 in ferro-vanadium was from 80¢ to 85¢ per pound.

[fol. 288] The net profits, after all charges, on the Rifle operation to January 1, 1935, on approximately 4,600,000 pounds of V_2O_5 sold, amounted to $1,965,375.68 or approximately, 42¢ per pound of V_2O_5 sold.

The present book value of all the property of the U. S. Vanadium Corporation is $369,719.62. As stated above, approximately, $25,000 of this amount is in real estate at Columbiana and Rifle. The balance of $344,719.62 represents the value of the Paradox Valley property. With an additional expenditure of $350,000 for the new Plant, the total investment in the Paradox Valley will amount to, approximately, $695,000.

We own large vanadium resources in the Paradox Valley. There is measured and mined out on dumps on our property, a total of 148,170 tons of ore containing 5,300,000 pounds of recoverable V_2O_5. In addition, we have partly developed by underground workings and core drilling, 225,000 tons containing 8,100,000 pounds recoverable V_2O_5, making a total of developed resources amounting to 13,400,000 pounds of recoverable V_2O_5. In addition to this there is a prospective ore tonnage which can, reasonably, be estimated at a minimum of 10,000,000 pounds recoverable V_2O_5; and the prospects in this section would indicate a plentiful supply of vanadium for many years to come.

If we should depreciate and deplete the Paradox investment of $695,000 on the recoverable V_2O_5 already developed—amounting to 13,400,000 pounds—these charges would amount to only 5.2¢ per pound of V_2O_5 recovered, against the 42¢ necessary at Rifle. Estimates of the production costs in the Paradox indicate an ultimate low-cost operation. This cost has been placed at 40¢ per pound including the depreciation and depletion charges. From the Paradox operation we will, also, recover uranium and radium compounds which, if credited to the production of V_2O_5, would somewhat lower the estimated cost of 40¢ per pound.

If we allow the same profit of 42¢ per pound of V_2O_5 sold, as experienced in the sales up to January 1, 1935, we can reduce the price of V in ferro-vanadium to $2.10 and still have the same profit.

	Lb. V_2O_5
Estimated Cost Paradox	$0.40
Profit	.42
	$0.82
2 lbs. for each lb. V in FeV	1.64
Conversion Cost	.46
Total	$2.10

[fol. 289] Realizing 25¢ per pound profit on V_2O_5 which would amount to 50¢ per pound of V in FeV, the sales price could be as low as $1.76 per pound of V in FeV.

The policy of reducing prices must be carefully considered and it may be pointed out that as long as we supply V_2O_5 to the Vanadium Corporation of America, we cannot reduce the price without making some adjustment with them on the high-priced material they have purchased from us and are holding in inventory. Under the circumstances a reduction in price could not very well be made immediately.

Mr. MacQuigg's report also indicates that the consumption of vanadium could be considerably increased by developing new uses in research. He estimates that this research would require from 3 to 5 years at a cost of, approximately, $300,000. There is no question in my mind but what research on new uses for vanadium, and research to stimulate the present uses for vanadium, is very important and essential to the future of the business.

A certain amount of this research should be done in connection with the plant operation in making V_2O_5. Mr. Burwell has pointed out that the research of the non-ferrous uses can be materially assisted in its cost side, if we can make the required salts simply and easily from the first plant solutions, rendering the precipitation and other steps now used, unnecessary.

It may be pointed out, however, that there will be no necessity for research along any lines, unless we are in position to take advantage of it on the production side. Unless we prepare for renewed production of V_2O_5 we will be out of the vanadium business within three years.

Very truly yours,

EW/J.R. Van Fleet
IC
Enc.

[fol. 290]

General Mining Department, New York City.

September 23, 1935.

Mr. F. H. Haggerson,
Room 1715, Building.

VANADIUM SITUATION.

Messrs. F. P. Gormely,
W. H. Sneath,
J. M. Price,
C. E. MacQuigg

Dear Mr. Haggerson:

On September 1, 1935, we had in stock 1,812,127 pounds V2O5 as fused vanadium oxide, and an equivalent of 600,000 pounds V2O5 in ferro-vanadium at the various plants, making a total inventory of 2,412,127 pounds V2O5 available on that date.

Place	Lbs. V in FeV	Lbs. V2O5
Rifle		1,054,958
Columbiana	290,026	97,157
Niagara	14,397	660,012
Welland	10,951	
	315,374	1,812,127
Equivalent V2O5 in FeV		600,000
Total V2O5 lbs.—9/1/35		2,412,127

Vanadium sales for the first eight months of 1935 have amounted to 138,138 lbs. V contained in FeV and 192,814 lbs. V2O5 in fused oxide and other products. The Vanadium Corporation of America took 166,073 lbs. of the V2O5 in fused oxide and the balance or 26,771 lbs. V2O5 was sold as red cake and ammonium metavanadate. Equivalent V2O5 up to September 1, 1935 sold is 455,300 lbs.

It is estimated that vanadium sales for the last four months of 1935 will average about 21,000 lbs. V in FeV per month. Also, 84,000 lbs. V2O5 will be shipped to the Vanadium Corporation of America, and about 15,000 lbs. V2O5 in the other products sold. The equivalent V2O5 for the last four months sales is estimated at 258,600 lbs. and the remaining stock of V2O5 on hand at the end of the year will be 1,698,227 pounds V2O5 at all places and in all products.

Tabulated, the 1935 sales V contained in FeV and V2O5 appears as under, with the last four (4) months estimated:

[fol. 291]

1935	Lbs. V in FeV	Lbs. V2O5
January	23,558	2,305
February	7,347	1,015
March	15,332	5,915
April	14,985	5,014
May	19,539	6,775
June	16,903	532
July	19,215	87,655
August	21,259	83,603
8 months	138,138	192,814
Last 4 "	84,000	99,000
	222,138	291,814
Equivalent V2O5 in FeV		422,086
Total lbs. V2O5		713,900

On January 1, 1936 we should have available 2,153,527 lbs. V2O5. It must be remembered that approximately

600,000 lbs. V_2O_5 is always tied up in manufactured ferro-vanadium and that the plant requirements are approximately, 500,000 lbs. V_2O_5 yearly, should sales continue about as experienced over the past three years and the usual stocks of FeV maintained. These stocks of finished FeV amount to approximately, 300,000 lbs. contained V and is a little over a year's sales' requirements of FeV.

Available Sept. 1, 1935	2,412,127	lbs. V_2O_5
Sales last 4 months 1935	258,600	"
Available Jan. 1, 1936	2,153,527	"
V_2O_5 in FeV stocks	600,000	"
	1,553,527	"
Plant requirements 1936	500,000	"
Available for sales	1,053,527	"

It may be seen from the above that there is only 1,000,000 lbs. V_2O_5 available for sales until more V_2O_5 is produced. It may also, be seen that with sales maintained at the present level, all of our stocks of V_2O_5 will have been exhausted by the end of 1938, provided no fused oxide is sold. Being so limited in the amount of V_2O_5 available for sales' purposes, we cannot take advantage of attractive business should it be offered. If we accepted 1,000,000 lbs. of fused oxide orders from the Vanadium Corporation of America or from Europe, we would be out of the vanadium business by the end of 1937.

Regardless of the substitution of other metals for vanadium in engineering steels, sales of FeV have remained about the same. It is apparent that the falling off in engineering steels is made up by the general improvement [fol. 292] in the steel business. Sales of V in FeV for the past nine (9) years are listed below, the sales for the last four (4) months of 1935 being estimated:

Year	Lbs. V in FeV	Equiv. lbs. V_2O_5
1927	163,870	311,350
1928	492,500	935,750
1929	345,220	655,920
1930	148,400	281,960
1931	158,710	301,550
1932	70,300	133,570
1933	286,410	544,180
1934	227,600	432,450
1935	222,140	422,100
	2,115,150	4,018,830

It safely may be assumed that the vanadium sales for 1936 will, at least, equal 1935. Records seem to indicate that we enjoy about 30% of the vanadium business, in which case the Vanadium Corporation will require about 1,000,000 lbs. V_2O_5 for their 1936 business. We should sell them vanadic acid at a price low enough so that a source of supply elsewhere will not look attractive. I am quite certain that acid from the Peruvian mine costs more than 80 cents per pound V_2O_5, but it certainly isn't less than 75 cents.

It may be realized from the above that time is now an important feature of our vanadium situation. It will require a year's time in which to construct the plant in the Paradox Valley and get it into production. If this new plant is to be in production the last of 1936, some of the preparatory work should be started as soon as possible.

The new plant at Uravan—which the Paradox Plant site has been named, and which will be the name of the post-office to be opened there—is estimated to cost $366,000. During the Summer and Fall of 1934 the salt works—which is to be a part of any operation in the Paradox, was installed, and the power canal was cleaned out and repaired, with an expenditure of approximately $16,000.

There is yet considerable preliminary work which can be done to advantage before the actual construction of the plant shall commence. During the Winter and Spring the weather is often bad in this section and would interfere

with and make outside construction more costly. The work that can be done this Fall to advantage, would consist of repairing the buildings on the plant site for the housing of construction forces, putting in the water supply, finishing the re-instatement of the power plant, and moving from Rifle compressors and other equipment necessary for construction purposes. Also, there is a certain amount of [fol. 293] underground work in the mine which can be done to advantage with a small crew, preparatory to mining the ore bodies which have already been developed. The design for the construction of the plant calls for underground ore bins. The location for the plant is such that these underground ore bins can be made much larger and cheaper than bins constructed from timber or steel.

It is recommended that we proceed with this preparatory work this Fall and Winter with an expenditure not to exceed $5,000 per month. There will be no additional overhead on this work, as we have the overhead anyway. With this work completed we will then be all ready for actual construction in the early Spring of 1936, and can have the first unit in operation by the end of 1936.

A single roaster plant on the Paradox ore will produce from 600,000 to 750,000 pounds of V_2O_5 yearly, which will take care of our own needs and accumulate some excess. This capacity can rapidly be increased by the addition of roaster units. The plant has been designed to allow for expansion in case increased capacity is necessary.

In Mr. MacQuigg's research report of June 1935, his conclusion points out that it would, probably, be advisable to reduce the price of vanadium products to the trade. With the new plant in operation in the Paradox Valley the price can be considerably reduced and still make as much profit as we made on the Rifle production.

We took over the United States Vanadium Company on January 1, 1927, paying therefore in cash and securities a total value of $2,275,000. In 1927 the Rifle property was set up on the books of the United States Vanadium Corporation as follows:

Real Estate & Equipment	—	$ 528,202.89
Mine	—	1,539,395.31
Discovered Mine	—	924,480.00
Total Property Set-Up	—	$2,992,078.20

This entire set-up was depreciated and depleted with the exception of $25,000 on the production at Rifle, amounting to approximately, 7,000,000 pounds V_2O_5. The $25,000 consists of $21,000 real estate and equipment at Columbiana, and $4,000 real estate at Rifle. This write-off amounted to 42¢ per pound on the production at Rifle; the average production costs at Rifle Plant were 38¢ per pound. The write-off on the Rifle production was not uniform over the years, and varied considerably, but the average cost of the V_2O_5 in ferro-vanadium was from 80¢ to 85¢ per pound.

[fol. 294] The net profits, after all charges, on the Rifle operation to January 1, 1935, on approximately 4,600,000 pounds of V_2O_5 sold, amounted to $1,965,375.68 or approximately, 42¢ per pound of V_2O_5 sold.

The present book value of all the property of the U. S. Vanadium Corporation is $369,719.62. As stated above, approximately, $25,000 of this amount is in real estate at Columbiana and Rifle. The balance of $344,719.62 represents the value of the Paradox Valley property. With an additional expenditure of $350,000 for the new Plant, the total investment in the Paradox Valley will amount to, approximately, $695,000.

We own large vanadium resources in the Paradox Valley. There is measured and mined out on dumps on our property, a total of 148,170 tons of ore containing 5,300,000 pounds of recoverable V_2O_5. In addition, we have partly developed by underground workings and core drilling, 225,000 tons containing 8,100,000 pounds recoverable V_2O_5, making a total of developed resources amounting to 13,400,000 pounds of recoverable V_2O_5. In addition to this there is a prospective ore tonnage which can, reasonably, be estimated at a minimum of 10,000,000 pounds recoverable V_2O_5; and the prospects in this section would

indicate a plentiful supply of vanadium for many years to come.

If we should depreciate and deplete the Paradox investment of $695,000 on the recoverable V2O5 already developed—amounting to 13,400,000 pounds—these charges would amount to only 5.2¢ per pound of V2O5 recovered, against the 42¢ necessary at Rifle. Estimates of the production costs in the Paradox indicate an ultimate low-cost operation. This cost has been placed at 40¢ per pound including the depreciation and depletion charges. From the Paradox operation we will, also, recover uranium and radium compounds which, if credited to the production of V2O5, would somewhat lower the estimated cost of 40¢ per pound.

If we allow the same profit of 42¢ per pound of V2O5 sold, as experienced in the sales up to January 1, 1935, we can reduce the price of V in ferro-vanadium to $2.10 and still have the same profit.

	Lb. V2O5
Estimated Cost Paradox	$0.40
Profit	.42
	$0.82
2 lbs. for each lb. V in FeV	1.64
Conversion Cost	.46
Total	$2.10

[fol. 295] Realizing 25¢ per pound profit on V2O5 which would amount to 50¢ per pound of V in FeV, the sales price could be as low as $1.76 per pound of V in FeV.

The policy of reducing prices must be carefully considered and it may be pointed out that as long as we supply V2O5 to the Vanadium Corporation of America, we cannot reduce the price without making some adjustment with them on the high-priced material they have purchased from us and are holding in inventory. Under the circumstances a reduction in price could not very well be made immediately.

Mr. MacQuigg's report also indicates that the consumption of vanadium could be considerably increased by developing new uses in research. He estimates that this research would require from 3 to 5 years at a cost of, approximately, $300,000. There is no question in my mind but what research on new uses for vanadium, and research to stimulate the present uses for vanadium, is very important and essential to the future of the business.

A certain amount of this research should be done in connection with the plant operation in making V2O5. Mr. Burwell has pointed out that the research of the nonferrous uses can be materially assisted in its cost side, if we can make the required salts simply and easily from the first plant solutions, rendering the precipitation and other steps now used, unnecessary.

It may be pointed out, however, that there will be no necessity for research along any lines, unless we are in position to take advantage of it on the production side. Unless we prepare for renewed production of V2O5 we will be out of the vanadium business within three years.

Very truly yours,

EW/J. R. Van Fleet
IC
Enc.

[fol. 296]

COPY

General Mining Department, New York City.

September 26, 1935.

VANADIUM SITUATION.

Mr. F. P. Gormely,
Room 1715, Building.

Messrs. F. H. Haggerson,
W. H. Sneath,
J. M. Price,
C. E. MacQuigg.

Dear Mr. Gormely:

Sales of vanadium contained in ferro-vanadium, and vanadium oxide in other products, have depleted our stocks of fused vanadium oxide so that we now have available, approximately, 1,000,000 pounds to satisfy vanadium oxide sales until we are in production with a plant in the Paradox Valley.

We will have on January 1, 1936, 2,153,527 pounds of V_2O_5, in all forms and at all localities. Of this amount 600,000 pounds of V_2O_5 will be converted into V in our stocks of FeV. During 1936, 500,000 pounds V_2O_5 will be necessary for plant requirements in keeping the stock of V in FeV up to about a year's sales requirements:

Available Jan. 1, 1936	2,153,527	lbs. V_2O_5
V_2O_5 in FeV stocks	600,000	"
	1,553,527	"
Plant requirements 1936	500,000	"
Available for sales	1,053,527	"

Should we continue to supply the Vanadium Corporation of America with V_2O_5, or take advantage of any other attractive business which might be offered, this entire stock

could easily be disposed of during 1936. If this were the case, by the end of 1936 we would have *no* available V_2O_5 for sale, and all of our vanadium would be contained in approximately, a year's supply of V contained in manufactured FeV for sales requirements.

It must be realized that *time* is now an important feature of our vanadium situation. It will require a year in which to construct a plant in the Paradox Valley and get it into production.

The new Paradox Plant, completed, is estimated to cost $366,000. Of this amount, approximately, $16,000 has been expended repairing the power dam and canal, and installing the salt works.

[fol. 297] There is considerable work which should be done in preparation for the actual construction of the Plant. This work would consist of repairing existing buildings and otherwise providing housing facilities for a construction crew; installing the water system which must be piped a distance of two (2) miles; finishing the reinstatement of the power plant; moving and installing necessary equipment from Rifle. There is a certain amount of underground work in the mine which can be done to advantage with a small crew, preparatory to mining the ore bodies which have already been developed. The design fot the construction of the Plant calls for underground ore bins and all of this work, together with excavations for foundations can be put in readiness for actual construction of the Plant during the Summer and Fall of 1936.

Should it seem desirable not to begin the actual construction next year, there will be little or no deterioration, or upkeep, of this preparatory work. It is recommended that this preparatory work be done during the Fall and Winter with expenditures not to exceed $5,000 monthly.

From my letter to Mr. Haggerson, dated September 23, 1935, it may be seen that we will be able to produce V_2O_5 in the Paradox Valley for 40¢ per lb. including depletion and depreciation, and that we could sell V in ferro-vanadium for $2.10 per pound and *make the same profit* per pound

of V_2O_5, 42¢ which we have made in the 4,600,000 lbs. of V_2O_5 sold to January 1, 1935.

It is pointed out that all of the production from Rifle had to take a depreciation and depletion charge of 42¢ per pound in order to completely write off the entire investment at Rifle, with the exception of $4,000 real estate valuation. In the Paradox Valley the entire investment will be the purchase price of the property and the cost of the new plant, making a total of $695,000.

The V_2O_5 in ore reserves in the Paradox, already partially and fully developed, amount to 13,400,000 pounds. Prospective additional resources estimated to be 10,000,000 pounds as a minimum. If the entire Paradox investment is depleted and depreciated on 13,400,000 pounds of developed V_2O_5, this charge will amount to only 5.2¢ per pound of V_2O_5 recovered against the 42¢ necessary at Rifle.

By allowing a profit of 25¢ per pound on V_2O_5, which would amount to 50¢ per pound of V in FeV, the sales price could be as low as $1.76 per pound of V in FeV.

Very truly yours,

EW/J.R.Van Fleet
IC

[fol. 298]

COPY

General Mining Department, New York City

September 26, 1935.

VANADIUM SITUATION.

Mr. F. P. Gormely
Room 1715, Building

Messrs. F. H. Haggerson
W. H. Sneath
J. M. Price
C. E. MacQuigg

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It must be realized that *time* is now an important feature of our vanadium situation. It will require a year in which to construct a plant in the Paradox Valley and get it into production.

The new Paradox Plant, completed, is estimated to cost $366,000. Of this amount, approximately $16,000 has been expended repairing the power dam and canal, and installing the salt works.

[fol. 299] There is considerable work which should be done in preparation for the actual construction of the Plant. This work would consist of repairing existing buildings and otherwise providing housing facilities for a construction crew; installing the water system which must be piped a distance of two (2) miles; finishing the reinstatement of the power plant; moving and installing necessary equipment from Rifle. There is a certain amount of underground work in the mine which can be done to advantage with a small crew, preparatory to mining the ore bodies which have already been developed. The design fot the construction of the Plant calls for underground ore bins and all of this work, together with excavations for foundations can be put in readiness for actual construction of the Plant during the Summer and Fall of 1936.

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pound of V2O5, 42¢ which we have made on the 4,600,000 lbs. of V2O5 sold to January 1, 1935.

It is pointed out that all of the production from Rifle had to take a depreciation and depletion charge of 42¢ per pound in order to completely write off the entire investment at Rifle, with the exception of $4,000 real estate valuation. In the Paradox Valley the entire investment will be the purchase price of the property and the cost of the new plant, making a total of $695,000.

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By allowing a profit of 25¢ per pound on V2O5, which would amount to 50¢ per pound of V in FeV, the sales price could be as low as $1.76 per pound of V in FeV.

Very truly yours,

EW/J.R.Van Fleet
IC

[fol. 300]

[Handwritten notation: Mr. Van Fleet]

U. S. Vanadium Corp. New York City.

Mr. F. H. Haggerson,
Room 1715, Building. December 3, 1935.

Messrs. F. P. Gormely,
W. H. Sneath,
J. M. Price. VANADIUM SITUATION.

Dear Mr. Haggerson:

There has been much discussion of late concerning a reduction in the sales' price of vanadium. It is now thought that a reduction in price will greatly stimulate the use of vanadium. The attached chart attempts to show in graphic form the profits per pound of V_2O_5 at various costs of production with the various proposed reduced sales' prices.

The top black line in the chart shows the sales' price obtained for V_2O_5 when V in FeV is selling at the different prices. The center black line shows the sales' price of V_2O_5 as fused vanadium oxide as sold to the Vanadium Corporation of America. The bottom black line represents the cost of manufacturing V_2O_5 as fused vanadium oxide.

It may be seen, therefore, directly from the chart that the profit in selling fused vanadium oxide to the Vanadium Corporation of America at 80¢ per pound, is 20¢ per pound, and that the profit per pound of V_2O_5 when selling V in FeV for $2.70 per pound is approximately, 50¢.

Our present stock of fused vanadium oxide is held on the books at 60¢ per pound. This book cost, probably, does not represent the true cost as there have been many write-ups and write-downs on our present stock of V_2O_5; and this 60¢ merely represents the actual cost of production plus the remaining write-off as of December 31, 1934 to clean up the Rifle investment.

The production costs at the new plant in Paradox Valley will be considerably lower. Whereas there was a large investment to write off at Rifle on a comparatively small amount of product, in the Paradox Valley the entire investment including new plant and property, will be approximately $700,000 and the write-off only about five cents (5¢) per pound.

Should we have a plant in operation the latter part of 1936 it is estimated that our production costs in the Paradox Valley will reach 40¢ per pound by the middle of 1937, and that the ultimate cost in the Paradox Valley will not be over 35¢ per pound. By assuming credits for some sales of uranium oxide which will be produced from the [fol. 301] Paradox ores, the ultimate actual cost of V_2O_5 will, probably, be even lower than 35¢ per pound.

It may be seen by the chart that should the price of V in FeV be reduced to $2.30 per pound with the cost of V_2O_5 at 60¢ per pound, the profit per pound of V_2O_5 is 30¢. Should the price of V in FeV be reduced to $2.30 per pound, a reduction in the sales price of V_2O_5 to the Vanadium Corporation of America is indicated.

When reducing V_2O_5 to V in FeV it requires two (2) pounds of V_2O_5 to make one (1) pound of V in FeV. If the price of V in FeV is reduced to $2.30 per pound or a reduction of 40¢ per pound, the reduction then in profits on V_2O_5 put into the FeV is 20¢ per pound. The idea in reducing the price of V in FeV is to stimulate and encourage the use of vanadium in alloy steels, and the Vanadium Corporation of America will, undoubtedly, share proportionately in this increase in sales. It is, therefore, reasonable that they should share one-half the loss in profits per pound of V_2O_5 in this attempt at stimulation, and accordingly the sales price of V_2O_5 to the Vanadium Corporation of America would be a reduction of 10¢ from their present price, or 70¢ per pound.

The chart shows that a further reduction to $2.00 per pound of V in FeV later on, would call for a sales price of 65¢ per pound V_2O_5 to the Vanadium Corporation of

America. Should this further reduction be made in the sales price of V in FeV, our ultimate profit per pound of V_2O_5 will be 40¢ and the profit per pound of V_2O_5 sold to the Vanadium Corporation of America will be 30¢ per pound.

The blue, broken line at the bottom of the chart represents the profits in dollars on sales of V in FeV under the profits shown on the chart. The estimated sales of V in FeV each year to establish this blue line are also shown on the chart as follows:

	Estimated Sales V in FeV.
1935	220,000 pounds
1936	300,000 "
1937	400,000 "
1938	500,000 "

It may be seen from the chart that on account of the reduction of price that in 1936 the profit will be less than in 1935 on sales of V in FeV, but it is estimated that by 1937 we will begin to reap the benefit of price reductions, and that the sales will considerably increase, and by 1938 they should reach 500,000 pounds.

[fol. 302] The red line next above represents the total profits on vanadium sales, including the profit on the V_2O_5 sold to the Vanadium Corporation of America. It will, also, be noted on this line that the total profits of vanadium sales of all kinds, will be slightly less in 1936 due to reductions and high cost of V_2O_5, but that by 1937 the profits are better, and by 1938 exceed any profits yet made on vanadium sales.

The estimated sales of fused vanadium oxide are shown on the chart as follows:

	Estimated Sales of V_2O_5.
1935	375,000 pounds
1936	500,000 "
1937	1,000,000 "
1938	1,000,000 "

It may be thought that the Vanadium Corporation would require more than 1,000,000 pounds V_2O_5 during 1938 if the estimated stimulation in sales is brought about, but in estimating 500,000 pounds of V in FeV for 1938, I am assuming that we will obtain a larger proportion of the vanadium sales than we have previously enjoyed.

No attempt to show profits in sales of V_2O_5 for direct smelting have been made, as it is assumed that such sales will detract from the sales of V in FeV. However, it is quite likely that the sales' price of V_2O_5 for direct smelting purposes would be, approximately, $1.00 per pound on which a correspondingly larger profit would be estimated—65¢ per pound against 40¢ per pound—the profit estimated on sales of V in FeV for 1938 on this chart.

We now have available for sales as fused vanadium oxide a little less than 900,000 pounds V_2O_5 when deducting the 80,000# sold to the Vanadium Corporation of America last week. This quantity of V_2O_5 available for sales is arrived at after reserving sufficient material for Columbiana operations during 1936 at the end of which time (1936) we will have in stock, approximately, 300,000 pounds of V in FeV. Although I have estimated, on the chart, only 500,000 pounds of V_2O_5 as sales to the Vanadium Corporation of America for 1936, it is quite likely that they might require more than this if the vanadium business continues to brighten.

It may be realized, therefore, that before the end of 1936 it will be absolutely necessary to be producing more fused vanadium oxide.

Very truly yours,

EW/J. R. Van Fleet
IC
Enc.

EXHIBIT VOLUME—IX

TRANSCRIPT OF RECORD

Supreme Court of the United States

OCTOBER TERM, 1961

No. 304

CONTINENTAL ORE COMPANY, ET AL.,
PETITIONERS,

vs.

UNION CARBIDE AND CARBON
CORPORATION, ET AL.

ON WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

PETITION FOR CERTIORARI FILED AUGUST 11, 1961
CERTIORARI GRANTED OCTOBER 23, 1961

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1961

No. 304

CONTINENTAL ORE COMPANY, ET AL.,
PETITIONERS,

vs.

UNION CARBIDE AND CARBON
CORPORATION, ET AL.

ON WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

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RECORD PRESS, PRINTERS, NEW YORK, N. Y., JANUARY 29, 1962

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Plaintiffs' Exhibit No. for Identification only		Original	Print
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Defendant Union Carbide's Exhibits:

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No. U-V (excerpts)—Contract No. W-7405 eng-201, dated September 1, 1943, between U.S.A. and United States Vanadium Corporation	517	547
No. U-W (excerpts)—Contract No. W-7405 eng-250, dated June 26, 1944, between U.S.A. and United States Vanadium Corporation	521	550
No. U-X (excerpts)—Contract No. W-7405 eng-32, dated January 25, 1943, between U.S.A. and United States Vanadium Corporation	524	554
No. U-3-G—Letter, dated January 26, 1944, from Continental Ore Company to Imperial Paper and Color Corporation	526	557
No. U-3-J—Interchange of letters, dated December 1, 29, and 31, 1947, between Imperial Paper and Color Corporation and Continental Ore Company	527	558
No. U-3-K—Letter, dated April 9, 1945, from Imperial Paper and Color Corporation to Continental Ore Company	530	561
No. U-3-M—Letter, dated January 29, 1944, from Continental Ore Company to Imperial Paper and Color Corporation	531	562
No. U-3-N—Letter, dated December 4, 1944, from Continental Ore Company to Imperial Paper & Color Corp.	532	564
No. U-3-R—Letter, dated May 11, 1943, from William A. Baehr Organization, Inc. to Continental Ore Company	533	565
No. U-3-T—Memorandum, dated December 8, 1943, from Morris Wolf to North Continent Mines	534	566
No. U-4-C—Letter, dated March 5, 1943, from Metals Reserve Company to Continental Ore Company	535	567
No. U-4-D—Letter, dated April 9, 1943, from Continental Ore Company to Electro Metallurgical Co.	537	569
No. U-4-E—Letter, dated April 14, 1943, from Continental Ore Company to Electro Metallurgical Sales Corp.	538	570

Defendant Union Carbide's Exhibits—Continued

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No. U-4-G—Invoice No. 24892, dated April 30, 1943, from Electro Metallurgical Sales Corporation to Continental Ore Corp.	541	573
No. U-4-I—Letter, dated May 11, 1943, from Continental Ore Company to Electro Metallurgical Sales Corp.	543	575
No. U-4-J—Letter, dated May 18, 1943, from Electro Metallurgical Sales Corporation to Continental Ore Company	544	576
No. U-4-K—Letters, dated May 19, 1943, from Continental Ore Company to Electro Metallurgical Sales Corp.	545	577
No. U-4-L—Letter, dated May 20, 1943, from Electro Metallurgical Sales Corporation to Continental Ore Company	547	579
No. U-4-M—Letter, dated May 21, 1943, from Continental Ore Company to Electro Metallurgical Sales Corp.	548	580
No. U-4-N—Letter, dated May 25, 1943, from Electro Metallurgical Sales Corporation to Continental Ore Company	549	581
No. U-4-O—Letter, dated May 26, 1943, from Continental Ore Company to Electro Metallurgical Corp.	550	582
No. U-4-P—Letter, dated May 27, 1943, from Continental Ore Company to Electro Metallurgical Sales Corp.	551	583
No. U-4-Q—Letter, dated June 1, 1943, from Electro Metallurgical Sales Corporation to Continental Ore Company	552	584
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	Original	Print
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No. U-5-L—Interchange of letters, dated July 26, and 28, 1939, between R. Poliakoff and Electro Metallurgical Sales Corp., and letter, dated August 28, 1939, from Continental Ore Corporation to R. Poliakoff.	557	588
No. U-5-N—Continental Ore Corporation's Invoices Nos. S704, dated September 16, 1940; S715, dated September 30, 1940; S749, dated October 4, 1940; S761, dated October 29, 1940; credit memorandum, dated October 30, 1940; S774, dated October 29, 1940; credit memorandum, dated October 30, 1940; S814, dated November 19, 1940; S827, dated December 6, 1940; S834, dated December 19, 1940; and S1004, dated July 19, 1941, to various corporations	560	591

Defendant Vanadium Corporation of America's Exhibits:

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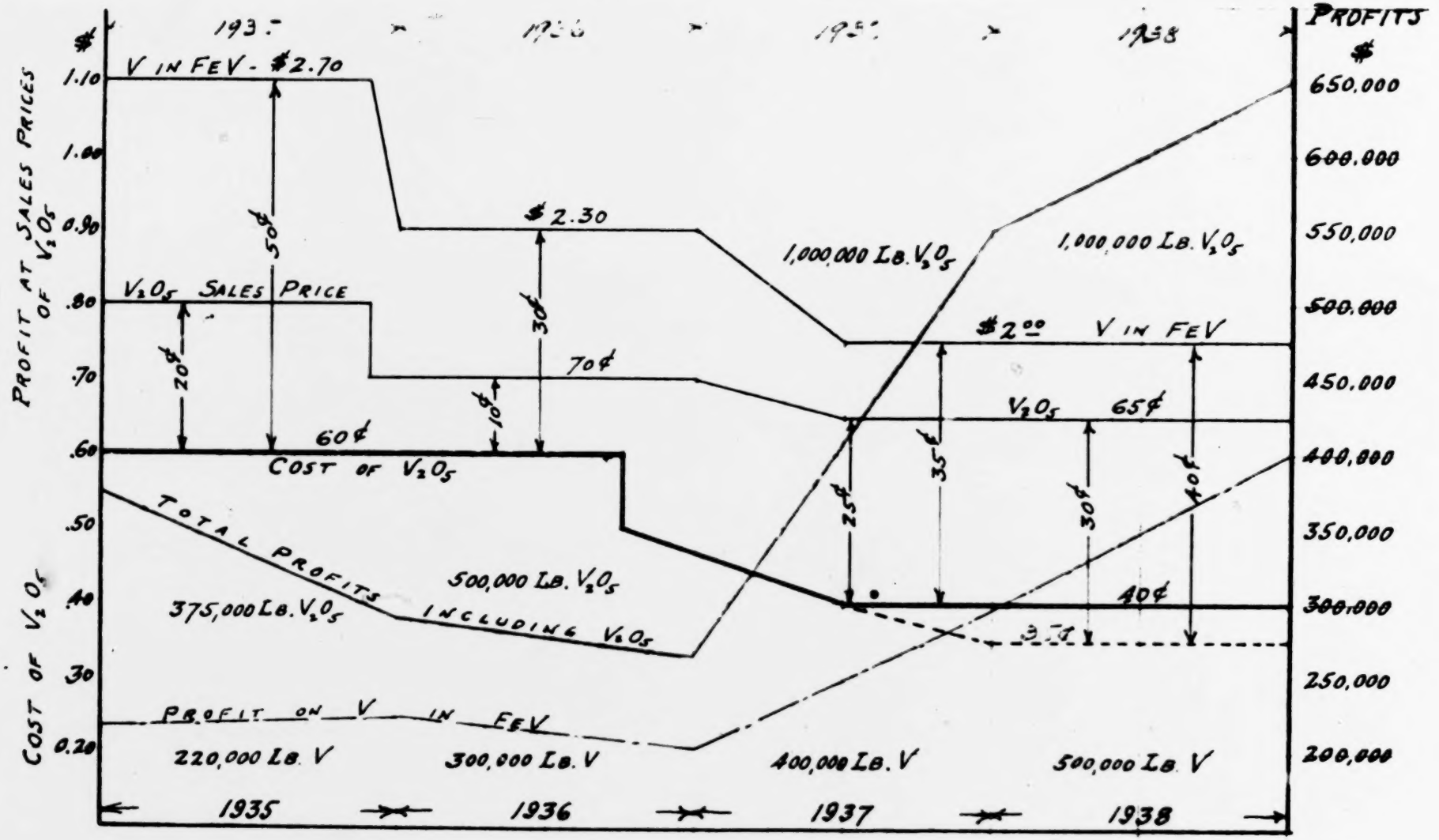
No. V-2-A—Letter, dated February 16, 1942, from Continental Ore Corporation to Apex Smelting Company	572	603
No. V-2-F—Interchange of letters, dated April 7 and 8, and September 30, 1942, between Continental Ore Corporation and Apex Smelting Company	576	608

[fol. 303]


PROFIT AT SALES PRICES OF V_2O_5
COST OF V_2O_5
PROFITS
$
1.10
1.00
0.90
.80
.70
.60
.50
.40
.30
0.20
650,000
600,000
550,000
500,000
450,000
400,000
350,000
300,000
250,000
200,000
1935
1936
1937
1938
V IN FEV - $2.70
$2.30
$2.00 V IN FEV
V_2O_5 SALES PRICE
60¢
70¢
65¢
40¢
50¢
30¢
20¢
10¢
25¢
35¢
30¢
40¢
COST OF V_2O_5
TOTAL PROFITS INCLUDING V_2O_5
PROFIT ON V IN FEV
1,000,000 LB. V_2O_5
1,000,000 LB. V_2O_5
500,000 LB. V_2O_5
375,000 LB. V_2O_5
220,000 LB. V
300,000 LB. V
400,000 LB. V
500,000 LB. V

[fol. 304]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 49 FOR IDENTIFICATION

COPY

General Mining Department, New York City.

Mr. F. P. Gormely,
Room 1715, Building. March 9, 1936.

VANADIUM STOCKS.

Dear Mr. Gormely:

We had available on January 1, 1936, 1,248,000 lbs. V_2O_5 at all places and from all sources. Of this amount the Columbiana requirements for 1936 will be, approximately, 500,000 lbs. The Vanadium Corporation of America has already contracted for a maximum of 375,000 lbs., and we are holding 250,000 lbs. subject to foreign orders. This leaves 123,000 lbs. available for sales of fused vanadium oxide, according to the following tabulation:

January 1, 1936 V_2O_5 available,	
U.S.V. Columbiana,	1,248,000 lbs.
	500,000 "
	748,000 "
Vanadium Corp. of America,	375,000 "
	373,000 "
Foreign Orders,	250,000 "
Balance	123,000 "

It is certain that the Vanadium Corporation of America will require more than 375,000 pounds of V_2O_5 this year if we are to furnish them, and it may readily be seen from the above tabulation that our entire stock of fused vanadium

oxide will be exhausted by the end of this year, unless we are in production before that time.

Very truly yours,

EW/J.R.Van Fleet
IC
extra cc

[fol. 305]

United States Vanadium Corp. New York City.

Mr. F. P. Gormely,
Room 1815, Building. March 31, 1937.

VANADIUM SITUATION

Dear Mr. Gormely:

Our stocks of fused vanadium oxide and ferro-vanadium have become somewhat depleted. Estimating capacities and sales for the current year and 1938, it would seem desirable that serious consideration should be given to increasing the capacity of the Paradox Valley Plant.

As of April 1, 1937 we have 166,000 pounds of V contained in ferro-vanadium against 237,000 pounds January 1, 1937, and 292,000 pounds January 1, 1936, and 337,500 pounds January 1, 1935.

We have available as of April 1, 1937, 164,000 pounds of fused vanadium oxide. The production of fused vanadium oxide at Uravan for the balance of this year is estimated at 800,000 pounds V_2O_5. The stock at Columbiana is practically depleted, consisting of only 28,000 pounds, and with the depleted stock of ferro-vanadium, at least from 600,000 to 750,000 pounds should be shipped to Columbiana this year to build up this stock of fused oxide and ferro-vanadium.

If 750,000 pounds of fused oxide is shipped to Columbiana there remains 214,000 pounds available for sales. 180,000 pounds of this amount is already spoken for by the Vanadium Corporation of America, and it is certain they will require more than this before the year is out. With the present set-up, at the end of 1937 we will have no stocks of fused oxide for sales purposes.

The present rated capacity of the Uravan Plant is 1,000,000 pounds V_2O_5 yearly. This capacity will, probably, be increased from 20% to 30% by high recoveries when lower temperature roasting is practiced, and the recovery of vanadium and uranium by acid leach begins.

The choke point limiting the capacity of the Uravan Plant is the roaster installation. At present we have two roasters which are separate units and can be operated separately and independently of each other. With two additional roasters the capacity of the plant would be brought up to a minimum of 2,000,000 pounds V_2O_5 yearly and such an installation would be flexible so that the plant could be [fol. 306] worked at any desired capacity up to the maximum, at a moment's notice.

To double the capacity of the plant would, also, require a few additional tanks, but it is roughly estimated that two additional roasters could be installed at the Uravan Plant during the Summer months for about $150,000.00. A single roaster could, probably, be installed for about $80,000.00. Depending upon delivery of materials the additional roaster capacity could be installed in about four months' time.

Very truly yours,

EW/J.R. Van Fleet
IC

[fol. 307]

United States Vanadium Corp. New York City.

Mr. F. P. Gormely, March 31, 1937.
Room 1815, Building.

VANADIUM SITUATION

Dear Mr. Gormely:

Our stocks of fused vanadium oxide and ferro-vanadium have become somewhat depleted. Estimating capacities and sales for the current year and 1938, it would seem desirable that serious consideration should be given to increasing the capacity of the Paradox Valley Plant.

As of April 1, 1937 we have 166,000 pounds of V contained in ferro-vanadium against 237,000 pounds January 1, 1937, and 292,000 pounds January 1, 1936, and 337,500 pounds January 1, 1935.

We have available as of April 1, 1937, 164,000 pounds of fused vanadium oxide. The production of fused vanadium oxide at Uravan for the balance of this year is estimated at 800,000 pounds V_2O_5. The stock at Columbiana is practically depleted, consisting of only 28,000 pounds, and with the depleted stock of ferro-vanadium, at least from 600,000 to 750,000 pounds should be shipped to Columbiana this year to build up this stock of fused oxide and ferro-vanadium.

If 750,000 pounds of fused oxide is shipped to Columbiana there remains 214,000 pounds available for sales. 180,000 pounds of this amount is already spoken for by the Vanadium Corporation of America, and it is certain they will require more than this before the year is out. With the present set-up, at the end of 1937 we will have no stocks of fused oxide for sales purposes.

The present rated capacity of the Uravan Plant is 1,000,000 pounds V_2O_5 yearly. This capacity will, probably, be increased from 20% to 30% by high recoveries when lower temperature roasting is practiced, and the recovery of vanadium and uranium by acid leach begins.

The choke point limiting the capacity of the Uravan Plant is the roaster installation. At present we have two roasters which are separate units and can be operated separately and independently of each other. With two additional roasters the capacity of the plant would be brought up to a minimum of 2,000,000 pounds V_2O_5 yearly and such an installation would be flexible so that the plant could be [fol. 308] worked at any desired capacity up to the maximum, at a moment's notice.

To double the capacity of the plant would, also, require a few additional tanks, but it is roughly estimated that two additional roasters could be installed at the Uravan Plant during the Summer months for about $150,000.00. A single roaster could, probably, be installed for about $80,000.00. Depending upon delivery of materials the additional roaster capacity could be installed in about four months' time.

Very truly yours,

EW/J.R.Van Fleet
IC

[fol. 309]
General Mining Department — New York City

November 3, 1937

Mr. F. P. Gormely
Room 1815
Building

United States Vanadium
Corporation—Operations

Dear Mr. Gormely:

VANADIUM SITUATION

We have available in all locations approximately 205,000 pounds of fused V_2O_5; the distribution being—

Uravan	120,000	pounds
Columbiana	56,000	"
Niagara	29,000	"
	205,000	"

It will be noted from the above tabulation that over half of this supply is at Uravan, and it must also be realized that approximately from 100,000 to 200,000 pounds will always be in transit, or unavailable for immediate use. Considering the position of this stock of fused V_2O_5, it leaves available supplies very low indeed.

In addition to the stock of fused oxide, we have available in all locations approximately 200,000 pounds of vanadium contained in ferro-vanadium. This is equivalent to a little more than six months' shipping requirements of ferro at the present rate of sales.

The stocks of fused oxide should not be less than 1,000,000 pounds in all locations, and we have in the past carried ferro stocks considerably higher than at present.

The capacity at Uravan is exceedingly flexible and is so arranged that any desired production up to 2,000,000 pounds of V_2O_5 can be made annually. We should allow a minimum of 750,000 pounds of fused oxide for our own requirements at Columbiana next year, and it would be desirable to increase the stock of ferro.

When Mr. Sneath went to Europe it was with the understanding that we would have next year an additional 1,000,000 pounds of fused oxide for European sales. It is not known as yet what disposition was made of this allotment of 1,000,000 pounds for European consumption.

Construction of the additional unit at Uravan is practically completed and the new roaster is now being dryed out preparatory to bringing it up to heat.

[fol. 310] Considering the present extremely low inventory of vanadium, it is certain that no curtailment of operations at Uravan should be made between now and January 1. It is recommended that before any plans for curtailment for next year are made that the European and Vanadium Corporation of America requirements should be carefully canvassed.

TUNGSTEN SITUATION

We have no stocks of tungsten ore to apply against the commitment under the Ludlum contract, and production from Pine Creek is being counted on for a part if not all of the tungsten ore to apply against this contract.

Construction work at Pine Creek is practically finished and the plant will be ready to operate about November 15. There can be no curtailment of operation at Pine Creek between now and January 1. If tungsten ore is to be produced from this property this Winter, Pine Creek must be operated continuously during the Winter months. If the property were closed and snowed in, it would probably be impossible to open it up later on in the Winter.

Very truly yours,

J. R. Van Fleet/mm
IC

[fol. 311]

General Mining Department — New York City

November 3, 1937

Mr. F. P. Gormely
Room 1815
Building

United States Vanadium
Corporation—Operations

Dear Mr. Gormely:

VANADIUM SITUATION

We have available in all locations approximately 205,000 pounds of fused V_2O_5; the distribution being—

Uravan	120,000	pounds
Columbiana	56,000	"
Niagara	29,000	"
	205,000	"

It will be noted from the above tabulation that over half of this supply is at Uravan, and it must also be realized that approximately from 100,000 to 200,000 pounds will always be in transit, or unavailable for immediate use. Considering the position of this stock of fused V_2O_5, it leaves available supplies very low indeed.

In addition to the stock of fused oxide, we have available in all locations approximately 200,000 pounds of vanadium contained in ferro-vanadium. This is equivalent to a little more than six months' shipping requirements of ferro at the present rate of sales.

The stocks of fused oxide should not be less than 1,000,000 pounds in all locations, and we have in the past carried ferro stocks considerably higher than at present.

The capacity at Uravan is exceedingly flexible and is so arranged that any desired production up to 2,000,000 pounds of V_2O_5 can be made annually. We should allow a minimum of 750,000 pounds of fused oxide for our own requirements at Columbiana next year, and it would be desirable to increase the stock of ferro.

When Mr. Sneath went to Europe it was with the understanding that we would have next year an additional 1,000,000 pounds of fused oxide for European sales. It is not known as yet what disposition was made of this allotment of 1,000,000 pounds for European consumption.

Construction of the additional unit at Uravan is practically completed and the new roaster is now being dryed out preparatory to bringing it up to heat.

[fol. 312] Considering the present extremely low inventory of vanadium, it is certain that no curtailment of operations at Uravan should be made between now and January 1. It is recommended that before any plans for curtailment for next year are made that the European and Vanadium Corporation of America requirements should be carefully canvassed.

the Uravan production; or it is possible to make a uranium-radium residue and be paid for the radium accordingly. This radium production, however, is uncertain and we have not estimated any credits therefrom.

Very truly yours,

EW/J.R. Van Fleet
IC
extra cc for Mr. Gormely.

[fol. 322]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 52 FOR IDENTIFICATION

[Handwritten notations—Follow—Tues Nov 12]

November 6, 1935

Memorandum to Mr. E. D. Bransome, President

I talked to Mr. J. M. Price, of Electro Metallurgical Sales Corporation, with reference to the new contract for Oxide. Mr. Price said he had been waiting for a renewal of conversation with Mr. Bransome and Mr. Haggerson. He said that he preferred to wait for a week or ten days before talking price, as the amount they want would be dependent upon the price which would be set for next year for Ferro-vanadium, and that he did not expect to have the information he required for at least a week.

He mentioned that I was probably familiar with their situation that their reserves of Oxides were much depleted, and that the speed with which they would have to proceed with the plans they had in mind (new operations in Paradox Valley is probably meant) would be determined by the amount of Oxide which they would have to "ear-mark." Therefore, he thought a spread of 250,000 firm and 250,000

on option was too great, as he explained it was a 100% spread, and they themselves never consider more than a 25% spread. Therefore, it would be up to us to either raise our firm offer or lower our optional requirements, as he pointed out that such a contract would practically tie up 500,000 pounds with no assurance beyond 250,000 pounds. The difference would inject an uncertainty which would make it difficult for them to properly plan for new operations.

Chas. Rees

CR:HKC

[fol. 323]

November 13, 1935

Mr. F. H. Haggerson, President,
Electro Metallurgical Company,
30 East 42nd Street,
New York, N. Y.

Dear Mr. Haggerson:

Please do not think I am hurrying you as there is no real rush about getting a price on Oxide, but it happened to be an item of unfinished business and I am wondering if you have had a chance to arrive at any conclusions as yet.

Very truly yours,

/s/ EDB
President.

TUNGSTEN SITUATION

We have no stocks of tungsten ore to apply against the commitment under the Ludlum contract, and production from Pine Creek is being counted on for a part if not all of the tungsten ore to apply against this contract.

Construction work at Pine Creek is practically finished and the plant will be ready to operate about November 15. There can be no curtailment of operation at Pine Creek between now and January 1. If tungsten ore is to be produced from this property this Winter, Pine Creek must be operated continuously during the Winter months. If the property were closed and snowed in, it would probably be impossible to open it up later on in the Winter.

Very truly yours,

J. R. Van Fleet/mm
IC

[fol. 313]

[Handwritten notation—Three illegible words]

UNITED STATES VANADIUM CORPORATION
CARBIDE AND CARBON BUILDING
30 EAST FORTY-SECOND STREET
NEW YORK

At Los Angeles
December 29, 1936.

Mr. Blair Burwell,
Uravan,
Colorado.

Dear Blair:

You have noted your copy of Mr. Lewis' letter of December 22 in reference to some Calcium Vanadate which is being made by the Molybdenum Corporation of America.

The Molybdenum Corporation of America are operating the Mammoth Mine near Tucson, Arizona. By flotation they

concentrate the lead molybdate, lead vanadate and gold from the ore. They, of course, recover the gold from these concentrates and have also been recovering the molybdenum. Apparently the vanadium is recovered in the form of a calcium vanadate mixed with salt.

As per the copy enclosed, I have asked the plant to forward to you 50 pounds of the calcium vanadate. I wish you would determine what it would cost to render this calcium vanadate into oxide, or what would be best to do with it, and how you would do it—in order to make a salable product.

The Molybdenum Corporation will produce approximately 300,000 pounds of vanadium oxide yearly in this manner and we, of course, must arrange in some way to corral this production. We cannot, however, make any kind of a proposition to the Molybdenum corporation unless we know how much it would cost to process the material into a usable form.

When you have completed your work on this I wish you would write a full report and send it to Lewis, Gormely, Critchett and Doom.

Very truly yours,

/s/ J. R. Van Fleet
J. R. Van Fleet.

[fol. 314]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 50 FOR IDENTIFICATION

Memo. on Ore Conference held in New York Office

December 8, 1936

Present:

Messrs. E. D. Bransome
Chas. Rees
J. R. Davis
S. C. King
H. E. Dunn
P. J. Gibbons

Mr. Bransome stated that the conference had been called due to the acute vanadium ore shortage at Bridgeville.

Mr. King stated that we have sufficient ore on hand at Bridgeville at the present time to run until December 31st. As of January 1, 1937, we will have on hand approximately 12,000 lbs. contained V in ore. He stated further that the Operating Department's program is to run the electric furnace, if possible, until February 28, 1937. To do this, we must have at least 55,000 lbs. of contained V in ore for January and the same amount for February, or a total of 110,000 lbs. contained V to finish the contemplated run.

Mr. Gibbons advised that there is no ore on the water but by reference to the Mining Department's records from Peru, we should have on hand at Jumasha the production for October and November which should approximate in the terms of shipping mixture, some 60,000 to 70,000 lbs. of contained V.

After a thorough discussion of our operating program for the early part of 1937, it was decided that in order to set-up an emergency stock we would have Mr. Fritz ship

to the States 250,000 lbs. of contained V in ore of the highest grade ore in the mine, Mr. Rees stating that this would be approximately 5% V. It was then decided that Mr. Fritz should be called by long distance telephone and get his report on stocks on hand and the conditions, giving him instructions to have this crude ore come forward. Mr. Rees talked to Mr. Fritz and instructed him to begin shipments immediately of the high grade crude ore and to continue these shipments until the entire tonnage of ore (250,000 lbs. contained V) is shipped. Mr. Fritz estimated it would take approximately three months to complete the shipment of this material. Mr. Fritz also advised that he has in stock in Peru, 50,000 lbs. of contained V in oxide. This material is now going through the dryer and he stated that same would be shipped before the end of December. Mr. Fritz also advised that the 50 ton plant will be in operation about January 1, 1937 but that during the tuning up period for this plant, which would cover the entire month of January, our production would be cut to approximately two-thirds of the normal production of the 15 ton plant. This will approximate 22,000 lbs. of contained V in oxide. The new plant should be producing by February 1st on a normal basis if nothing untoward occurs. Mr. Rees will confirm his telephone instructions to Mr. Fritz with reference to the shipment of the 250,000 lbs. of contained V in crude ore.

Messrs. Davis and King stated that with the receipt from Peru of the 50,000 lbs. contained V in oxide, which should amount to close to 70,000 lbs. contained V in mixture, and the receipt of the December production before the end of January, they should run into no difficulty in running out the balance of their planned electric furnace run.

[fol. 315] Mr. Gibbons advised that we have placed an order with E. M. for two cars of Pentoxide, one of which has already been received at Bridgeville and the second is to be shipped the first week in January. We have committed ourselves to a total of 300,000 lbs. of pentoxide, including the two cars already on order. When required,

we will issue an order for approximately three cars additional.

The Operating Department was requested to advise the Mining Department with reference to their estimated operating schedule for the year 1937 and the approximate tonnages of ore which should be in stock at Bridgeville at various dates during the year in order to meet this schedule. The Mining Department will then advise the Operating Department as to their ability to meet the schedule as presented or give sufficient notice of any necessary change which must be made due to conditions existing in Peru.

At the end of the conference, Mr. Bransome stated that all concerned must bear in mind the fact that the 250,000 lbs. of contained V in crude ore, which is to come forward from Peru, is to be considered as an emergency stock only and not to be used unless the normal shipments to us from Peru should stop or be held up for reasons beyond our control.

P. J. Gibbons, Secretary.

[fol. 316]

Conference on Raw Material Situation
Held in New York Office Feb. 9, 1937

Present:

Messrs. Bransome
Davis
Rees
Gibbons. √

The Operating Department submitted the following schedule of Vanadium ore required for their operations over the year 1937:

Ore Required	High Grade	Low Grade
February		54,000
March		54,000
April	67,400	
May	92,200	
June	106,400	
July	71,000	
August	71,000	
September	60,000	
October	54,000	
November	54,000	
December	54,000	
	630,000	108,000
Total		738,000

It was determined from advice received from Mr. Frits and schedule of shipments worked up between him and the Lima office of the Grace Line, that we could expect the following shipments of high grade and low grade ores over the first half of 1937:

Total Ore to reach Bridgeville by approximately July 18, 1937

	Lbs. "V"	
To Arrive	High Grade	Low Grade
February	29,000	260,000
March	—	240,000
April	44,800	
May	112,000	
June	190,400	
July	212,800	
	589,000	500,000
Total		1,089,000

A check of our present ore situation at Bridgeville shows that we have on hand 27,000 lbs. contained "V" in ore. We have afloat 29,000 lbs. contained "V" high grade and 260,000 lbs. contained "V" low grade. Further, with these figures, Mr. Davis stated that by the use of the low grade ore in

the electric furnace for the months of February and March, he should be ablesto meet his production requirements. [fol. 317] After July, all material arriving at Bridgeville will be of high grade. This should approximate tonnage of between 70,000 and 90,000 lbs. of contained "V" per month.

In reference to the use of Pentoxide for the production of Primos grade vanadium, Mr. Davis estimated that we would require a total tonnage of Pentoxide of 951,900 lbs. contained V2O5. His estimate of production for our own plant at Bridgeville is 575,000 lbs. contained V2O5. Under these circumstances, it was deemed advisable to place a further order with E. M. for 300,000 lbs. contained V2O5 for shipment during the year 1937, shipments to be spread out over the year as near as possible to the times he feels he will need same.

The chrome ore situation was then discussed. Taking into consideration the estimate of sales, as prepared by the Sales Department, it was the consensus of opinion that we have just about enough ore on hand and on order to cover our requirements for the year 1937. Therefore, it was further decided that in order to build up our stocks to a safe position so that we would reach the end of the year in good shape from a chrome ore point of view, Mr. Rees was authorized to purchase up to 10,000 tons of ore, consisting of 8,000 tons of lump ore, either Turkish or Selukwe, and 2,000 tons of Concentrates.

As both Messrs. Rees and Davis were satisfied as to our position on Quartzites and other miscellaneous materials, these raw materials were not discussed.

This matter of raw materials is to be discussed monthly. Therefore, the subject will again be reviewed after the Advisory Board meeting which is called for March 9, 1937.

P. J. Gibbons, Secretary.

[fol. 318]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 51 FOR IDENTIFICATION

COPY

[Handwritten notations—Rose—Copy]

U. S. Vanadium Corporation, New York City.

Mr. F. P. Gormely, March 25, 1936.
Room 1715, Building.

Messrs. F. H. Haggerson,
W. H. Sneath,
J. M. Price.

VANDIUM SITUATION.
Vanadium Corp. of America.

Dear Mr. Gormely:

On Monday I had a talk with Mr. Bransone and Mr. Rees of the Vanadium Corporation of America in reference to the purchase of some of the equipment now at their Naturita Plant for use in our Paradox Valley Plant at Uravan. Previous conversations in regard to the use of the Naturita Plant were reviewed by Mr. Rees and myself for the benefit of Mr. Bransone.

It was then brought out that we had selected the Uravan Plant site for purely economic reasons. I explained that Uravan was 15 miles closer to rail at Grand Junction, which railroad point enabled us to use the new Dolores River road, thereby shortening the hauling on finished product and supplies. Also, the Uravan site was more central to our ore supply, and the saving in hauling alone would, practically, build the plant. I further explained that with our manufacturing process as it had been developed, the Naturita Plant would have to be entirely rebuilt with the exception of the single roaster installation. I stated that there was some of the equipment in the Naturita Plant which we could use, and would be glad to consider its purchase; also, such ore supplies as they had available.

The outcome of this discussion was that at the present time the Vanadium Corporation of America would not consider dismantling their Naturita Plant and would keep their investment intact. They would consider the leasing of the Plant or an outright sale. This subject was not discussed further, because the Naturita site is not desirable for economic reasons, and the fact that the Vanadium Corporation of America have an exalted idea of the value of the Naturita Plant, regardless of the operating failure they have already experienced.

The discussion then turned to the vanadium situation in general. Mr. Bransone stated a reduction in price of V in ferrovanadium is indicated, but that a small reduction would do no good; and that their cost of producing vanadium was so high a considerable reduction could not be made. I asked him what he thought would be a "considerable reduction", and he said to $2.25 or $2.10 per pound. He went on to say that with the fused oxide costing him 80¢ per pound there was little profit in vanadium at the present prices. It developed when he was roughly casting up these figures, that in their present practice it requires 2.2 lbs. of V_2O_5 to make 1 lb. of V in ferro.

[fol. 319] Mr. Rees is the Vice President of the Vanadium Corporation of America, and a Mining Engineer. He is responsible for the Peruvian operation. He told Mr. Bransone that our costs at Rifle were between 60¢ and 70¢ per pound of V_2O_5, and assumed it as being 65¢. With this assumption he considered 80¢ per pound was about as cheap as we could be expected to sell fused oxide from our present stocks. I stated that the Rifle production was, probably, cheaper than the Peruvian production in any case—to which he made no reply.

In regard to the Peruvian production I said it was evident they had resumed operations in Peru, judging from the amount of concentrates they had been importing over the last few months, which amounted (up to February 1st) to 709 tons containing an equivalent of, approximately, 230,000 pounds of V_2O_5 in fused oxide.

Mr. Bransone stated in answer to this that they had resumed operations in Peru on a reduced scale and expected to continue this production all this year. He said the object of this operation was so he could find out exactly what the production cost; that some economies were being put into effect; and that the figures of the past operation were not clear, and he was finding out the facts for himself. The same crew is operating, and Charlie Fritz is still in charge.

Apparently, there has been much discussion between Mr. Bransone and Mr. Rees in reference to a purchase contract with us, because Mr. Rees called to Mr. Bransone's attention the fact that the Rifle production at 65¢ per pound V_2O_5 included a high depletion charge. Mr. Rees said we had purchased the Rifle properties at a relatively high figure and that his estimate was the depletion charge must have been about 25¢ per pound. He further stated that our Paradox Valley investment was relatively small and the depletion charge would, practically, be negligible—so costs at the Uravan operation would be somewhere between 40¢ and 50¢ per pound. He inferred they could not hope to secure this cost in Peru and, apparently, they have had many discussions about this Peruvian operation, and I am under the impression that Mr. Rees is not in favor of it. I asked how much V_2O_5 they would produce in Peru this year and they replied, probably about 500,000 pounds, but the production would depend upon the success of the operation as they planned it.

Mr. Bransone stated he believed in laying his cards on the table in regard to vanadium production, that he knew he could not fool us, and any other attitude would be foolish to take. He said when he found out what his costs were going to be in Peru, he believed it would be advantageous for all concerned to get together on one production operation. He said that by the time he was ready to discuss this [fol. 320] situation we would, probably, know just what our costs would be at the Uravan Plant. Mr. Bransone asked what our costs at that Plant would be. I told him we were in no position to make any definite statement as to this cost at this time, because we were making some changes in

the process and were not certain as to how these changes would affect the costs.

Mr. Bransone stated many times that he was very anxious to reduce the cost of V_2O_5 production to a point where a considerable reduction in the sales price of V in FeV could be made. In this respect I said that there seemed to be a difference of opinion as to the advisability of reducing the sales price of vanadium as to its effect upon sales. Mr. Bransone said his contacts with the steel people seemed to indicate that a considerable reduction would stimulate the use of vanadium.

The vanadium production contemplated by the Molybdenum Corporation of Ameria at their Mammoth operation, was discussed and Mr. Bransone wanted to know what I knew about it. I reviewed the Mammoth operation as I knew it—which was to the effect that so far the production of vanadium and molybdenum at the Mammoth had been uncertain and disappointing, but that they planned to build a new mill and could recover, according to my figures, approximately 300,000 pounds V_2O_5 yearly. This production would be in the form of a lead-molybdate and lead-vanadate concentrate containing gold and siiver.

I told them that information I had was to the effect that the Molybdenum Corporation had not been very successful in separating the vanadium and molybdenum from these concentrates. Mr. Bransone said that Mr. Hirsch had been to see him a couple of times about reducing these concentrates for him and purchasing the vanadium. Mr. Bransone said he had not been able to find out from Mr. Hirsch how much vanadium product or residue he actually had at present, nor in what form it was—and wanted to know what information I had on this subject. I told him my information was not sufficient to definitely state either the amount or form of the vanadium, but that I thought the vanadium was, at present, in the form of a sodium vanadate slag also containing the molybdenum, and that the molybdenum in the slag equalled about twice the vanadium content. This was the opinion of Mr. Rees also, and he stated his information on this was to the effect that the work so far carried

on by the Molybdenum Corporation on these vanadium-molybdenum concentrates had resulted in a very high cost for recovery of these metals.

****

My impression gained from this talk with Messrs. Bransone and Rees was that the Vanadium Corporation is in somewhat of a state of confusion regarding their vanadium production. It is evident that they must obtain a cheaper source of vanadium, and will use as a threat the possi- [fol. 321] bilities at both their Peruvian and Naturita properties in negotiating lower prices with us the latter part of this year.

An interesting fact indicated from this conversation was that, apparently, their process for making ferro-vanadium is not as efficient as ours. It requires 2.2 lbs. of V_2O_5 for 1 lb. of V in FeV. We roughly figure 2 lbs. in our process, but the actual experience is approximately 1.9 lb. V_2O_5 for each pound of V in ferro.

The actual situation with us in the Paradox Valley is that we estimate we will be able to produce V_2O_5 for 40¢ per pound including depreciation and depletion charges, without taking any credit for uranium production. We will, at this operation, produce U_3O_8 residue as a by-product—the amount of U_3O_8 residue produced will depend upon the ores processed.

We have ores containing a high uranium content and by selective mining we can make this production, approximately, as desired. There is a market in the United States for about 250,000 pounds of U_3O_8 yearly—which is mostly imported from Belgium. It is thought that we can readily sell about 100,000 pounds of U_3O_8 yearly, principally to the Vitro Manufacturing Company of Pittsburgh, who have already expressed a desire to purchase their supply from us. The profit on U_3O_8 should be about $1.00 per pound and with this credit against the vanadium production the cost of V_2O_5 would be about 30¢ per pound.

There are, also, possibilities with radium in making a low-grade radium sulphate residue as a by-product from

[fol. 324]

[Letterhead of Electro Metallurgical Company,
New York, N. Y.]

[Handwritten notation—EDB]

November 15, 1935.

Mr. E. D. Bransome,
President, Vanadium Corporation of America,
120 Broadway
New York, N. Y.

Dear Mr. Bransome:

I expect that we will be getting in touch with you sometime within the next ten days with regard to the price on Oxide.

Very truly yours,

/s/ Fred H. Haggerson

FHH:MK

[fol. 325]

[Letterhead of United States Vanadium Corporation,
New York, N. Y.]

[Handwritten notations—AAC Jr—C/BDs—7/11/34]

July 10, 1934.

Mr. Charles Rees, Vice President,
Vanadium Corporation of America,
#120 Broadway,
New York City.

Dear Mr. Rees:

I have a letter from Colorado which states that on June 21st Mr. Burwell met Mr. Sterling at Naturita and went over both the Naturita and Vanadium plants.

Mr. Sterling furnished Mr. Burwell with plans, and drawings and estimates are now being made for the re-arrange-

ment to suit our process. I will be very glad to advise you when this work is completed.

It was kind of you to arrange with Mr. Sterling to confer with Mr. Burwell, and I appreciate the courtesy very much.

Very truly yours,

/s/ J. R. Van Fleet
General Manager

EW/J. R. Van Fleet
USV

[fol. 326]

June 6, 1934

Mr. Robert Sterling,
Vanadium Corporation of America,
Boulder, Colo.

Dear Sterling:

In connection with the survey which engineers of the U.S. Vanadium Company are making in the Paradox Valley for a proposed operation at the Joe. Jr. mill site, we have been requested by their office here to permit their engineers to include our plant and facilities at Naturita in their investigation.

We have had several discussions with their Mr. Van Fleet during the past three or four months on the subject of joining our properties and plant in the Paradox Valley with their holdings on a mutual operating basis by which each party is to retain unimpaired titles to their holdings. If we come to any agreement as to conditions and method of operation, one party to the agreement will be selected as the operator, and the non-operating member will be represented by an agent to protect its interests.

We wish you to be present for whatever time may be necessary, when the U. S. Vanadium engineers inspect the Naturita plant, as you will then be in a better position to give us your impressions as to what they may have in mind.

We feel that the location of the Naturita plant, with its convenient coal reserves, is a valuable asset. The building of the proposed plant at the Joe Jr. mill site would involve a large capital expenditure for plant and power, in addition to extra transportation costs, housing, and other problems which would not be required at the Naturita plant. I also think you will agree that both companies have sufficient ore reserves contiguous to the Naturita plant to maintain operations for a number of years.

Mr. Van Fleet stated to me on the telephone that Mr. Wilson had allowed him to inspect the Naturita mill on his recent visit there but that he thought he ought to ask permission so that they could make a more complete study. He suggested that we wire Mr. Wilson to allow the engineers to do this work but I pointed out to him that you were our representative in Colorado and any such orders for entering the property would have to come from you. I do not know exactly what Mr. Van Fleet has in mind as he [fol. 327] speaks of the necessity of doing a lot of draughting, mapping and surveying at our plant. I do not think it will be necessary for you to remain there for the period of such work but will leave to your judgment the time needed to form for us as complete an idea as possible of the character, scope and object of the investigations they are making. Would suggest that you get in touch with the U.S. Vanadium engineer in charge of this work as soon as possible and make such arrangement as you may deem necessary.

I have given you the outline of the situation at this date so that you can govern yourself accordingly in meeting their engineers. I do not know whether Mr. Van Fleet has discussed the matter of possible joint operation in Colorado with his engineers, and if you learn that he has not, would suggest that you respect Mr. Van Fleet's reticence in the matter with them.

Yours very truly,

/s/ Chas Rees
Vice President

CR:LD

Copy to Dr. B.D.S.

[fol. 328]

[Handwritten notation—File]

March 13, 1934

Memorandum to Mr. A. A. Corey, Jr.

Re: Rare Metal Properties

Mr. Van Fleet was in today and said that he wished to discuss the possibility of making some sort of an arrangement whereby a Vanadium operation could be started in the Paradox Valley where our Rare Metal properties are situated.

He stated that for some time he has been facing the problem of producing Vanadic Acid for their use before their present stocks are exhausted, which he thought might be at the end of a three-year period from the present time. Boiled down, his ideas are as follows:

1—The plant we have at Naturita, with some changes to increase its capacity, which he says their experience would dictate, would be acceptable to them if we wish to sell it at a replacement value. They would then make Vanadic Acid and sell us our requirements at a price to be determined.

2—As a consideration for the sale of the plant to them, they would purchase our ore at the plant, at prices ranging from $15 to $20 per ton delivered, according to the grade of ore.

On the assumption that we have 68,000 tons proven and probable ore, averaging close to 3% V_2O_5, this would mean an estimated net to us of around $8 per ton for the ore delivered at the plant or roughly $500,000 from sale of ore from our properties, plus what they would pay us for the plant.

3—Supposing that we are not interested, then he would proceed to make such plans as would be necessary for rebuilding the old Standard Chemical Company plant, using as much as they can of the present equipment at Rifle.

COMMENTS: Mr. Van Fleet, in our discussions, ignored the coal at Naturita until I mentioned that we thought we had a nice layout there, and he agreed it was very convenient to have the coal mine, as you might say, almost in the backyard of the plant. He asked me for an estimate of [fol. 329] our tonnage, but I told him that due to later discoveries on our own claims and the surrendering of the lease, that our figures had changed somewhat from those made by Professor Hutchinson, but we felt that with the ore available on our own properties, plus what would come to us from independent properties (which he agreed would likely be offered), that we had sufficient ore to maintain an operation on the basis of present plant capacity.

He stated that they had made surveys for roads connecting their various properties to their proposed mill location. Among these are the Jo Dandy claims, which he referred to as having large reserves of ore. These are nearer to our plant at Naturita by eight to ten miles than they would be to their proposed new plant site. Mr. Van Fleet agreed that the Jo Dandy ores would be cheaper if handled at our Naturita plant.

Mr. Van Fleet made several remarks which are worth noting.

1—He said they would not be able to sell Vanadic Oxide at the price we are now getting it, as costs of operation at Naturita would be higher than at Rifle. He mentioned 90¢ Lb. V_2O_5.

2—An economical operation could only be achieved by a plant working continuously and with sufficient capacity to take care of their needs, plus all or part of our requirements. He figures the present plant at Naturita, with changes they would make, would produce 750,000# of V_2O_5. This checks closely with the figure given us by the Schulers as the capacity of the plant as designed now.

What we must determine, is the amount of Vanadic Oxide they will require for themselves, as Mr. Van Fleet

says they want to stay in the Vanadium business. A fifty-ton plant such as we now have at Naturita might produce more than they would need, and as a result, their costs would become correspondingly higher if it were not worked continuously and to capacity. With a plant twice the capacity, which could only be brought about by our cooperating, there would be further economies in operation, but whether these economies would be great enough to make them attractive to us in comparison with our Peruvian ores, would have to be worked out.

What I wish to point out is that any benefits derived from an operation in the Paradox Valley, would be through our taking sufficient V_2O_5 to permit of the continuous operation of a plant and what was not emphasized but what I feel was a very important thought in the mind of Mr. Van Fleet, is our possession of the coal and its favorable location to our plant. I asked him just how far he had worked up any of his ideas on the subject and he said that so far he merely wished to discuss the matter to ascertain our attitude, but that he would like to press it if we were interested, as he felt that the time was ripe for him to submit plans to his principals.

[fol. 330] While they possess a very large ore reserve, there are several points in our favor viz., the possession of the coal and its cheapness; the fact that low costs could only be made by them through our agreeing to take a sufficient quantity of V_2O_5 to permit of continuous capacity operation and finally, there is the possibility that we ourselves could make an operation with the ore reserves we now have, plus purchased ore.

Any way you look at it, our position is just as good as theirs.

Chas. Rees.

[fol. 331]

Memorandum to Mr. A. A. Corey, Jr.

Mr. Van Fleet called this afternoon. Said he dropped in as he was downtown on other business.

With regard to their activities in Colorado, he said that they were completing their plans for an operation, but that he thought that his opinion, which he formed during the beginning of the year, that there would be a great increase in the demand for Vanadium and consequently necessitate rushing plans for operation in the Paradox Valley, was not justified by his present information on the future of Vanadium.

He said they would finish their plans and would mark time. They will, however, put in a small experimental salt evaporating plant on the Dolores River and he said he was taking steps to install a hydro electric plant at their old millsite down the river from our Naturita plant. This power would be used at the mines and not in the mill.

C.R.

August 17, 1934

[fol. 332]

[Letterhead of Electro Metallurgical Sales Corporation, New York, N. Y.]

[Handwritten notations—PJG—Note AAC—PJG 4/3/35]

April 2nd, 1935.

Mr. A. A. Corey, Jr., President
Vanadium Corporation of America
120 Broadway
New York, N. Y.

Dear Mr. Corey:

Pursuant to my letter of September 15, 1933 and confirming the conversation had with the writer in my office this morning, we will extend the delivery date of the 250,000 pounds of vanadium oxide still due on your contract to the third and fourth quarters of this year instead of shipment being made in the second quarter.

As arranged this morning, a car of this oxide will be shipped in each of the following months: July, September and December, 1935.

Assuring you of our pleasure in being able to make this change for you, I am, with kind regards

Very truly yours,

/s/ J. M. Price
President

JMP:AP

[fol. 333]

April 3, 1935

Personal

Dr. B. D. Saklatwalla, Vice President,
Vanadium Corporation of America,
Bridgeville, Penna.

Dear Doctor:

I spent the morning of Tuesday with our friends on Forty-second Street with two objects in view.

First,—To extend the deliveries of the remaining oxide due this second quarter to the last half of the year.

I am pleased to advise that this was finally found acceptable on the part of our friends.

In effect, this is deferring a $190,000 raw materials bill from the second quarter to the last half.

The shipments will be as follows: 1 car in July; 1 in September and 1 in December.

Second,—To discuss possible Silico-Manganese arrangements for next year.

I think it will be agreeable to E.M. to furnish our requirements of this material on the same general terms as affects our contract for this year and it seems to me that this is a very satisfactory solution. This second proposition has not

yet been confirmed, but I am confident that it will be. In any event, with respect to Silico-Manganese, you know we are absolutely protected through our present contract for the balance of this year.

A further word with regard to the oxide matter. I believe E. M. will be willing to contract for additional oxide for next year, but I told them we could not possibly make any decision as to whether we would want oxide from them next year earlier than October.

If the optimistic views of Miller and Gus with respect to additional business when the new extras go into effect are 50% sound, then we may be glad to have some amount of oxide from E.M. or some other source.

Yours very truly,

/s/ A. A. C.
President.

[fol. 334]

March 17, 1936

MEMORANDUM OF DISCUSSION WITH MR. B. O'SHEA, ELECTRO METALLURGICAL COMPANY

In a discussion this morning with Mr. O'Shea, regarding possible purchases by V.C.A. of oxide from E. M., the following discussion was had:

Mr. O'Shea stated that E.M. intended to build a plant in Colorado for the reduction of vanadium ore and that the size of the plant and the equipment therefore would be dependent upon the demand by V.C.A. of oxide from E.M. and that the date on which they would start building was dependent on whether V.C.A. would take 300,000 pounds of V_2O_5 within the next twenty-four months that they had ear-marked for V.C.A.

I assured him that we would take from them within the next twenty-four months V_2O_5 in the amount of at least

300,000 pounds, which would permit him to proceed with his building operation on any scale he saw fit.

While the subject of price was not mentioned, I assume that the price of the oxide to us would be the same or approximately the same as that we are paying now under the existing contract.

Mr. O'Shea was concerned with the possibility of our resuming operations in Peru and thus leave them with a large amount of oxide on their hands which they were really carrying for us.

I advised that I did not know the extent of the ore of high vanadium content in Peru and would not be convinced of any figures until proof arrived at step by step was given me.

I did tell him, however, that the extensive operations of the Peruvian mine were contingent upon the cost of purchase or production here and that if the cost here was substantially higher than that of Peru that we would naturally turn to Peru if we were convinced that the ore body there was sufficient to carry on over a substantial period of time.

I further advised him that if substantial quantities of high grade ore were available there that we intended to extend the life of the mine as far as reasonable and that if the amount of high grade ore there was very low in quantity that we would naturally use it up as quickly as possible so as to cut out expensive operations there.

I stipulated that when, as and if we went on extensive operations in the Peruvian deposit that we would give them sufficient notice if such notice would prevent them from unnecessary plant expenditures to take care of our demand.

At the close of this discussion, Mr. O'Shea was of the opinion that a plant with one roaster would be sufficient to answer their purpose.

E. D. Bransome

Copy to P.J.G.
C.R.

FORM S E. M. S.

CABLE ADDRESS "FERROALLOY" NEW YORK

[redacted]

CODES, WESTERN UNION

LIEBER'S A. B. C. 5TH EDITION

ELECTRO METALLURGICAL SALES CORPORATION

CARBIDE AND CARBON BUILDING, NEW YORK

DISTRIBUTORS "ELECTROMET"

FERRO-ALLOYS AND OTHER ELECTRO-METALLURGICAL PRODUCTS

SALES AGENTS

E. J. LAVINO & COMPANY, BULLITT BUILDING, PHILADELPHIA

HICKMAN, WILLIAMS & COMPANY, PITTSBURG, CINCINNATI, CHICAGO, ST. LOUIS, DETROIT, CLEVELAND, NEW YORK, PHILADELPHIA.

MEMORANDUM OF SALE

(IN DUPLICATE)

CONTRACT No. M-10870

January 3rd, 19 36.

ELECTRO METALLURGICAL SALES CORPORATION A CORPORATION OF NEW YORK HEREBY AGREES TO SELL AND

Vanadium Corporation of America OF New York, N. Y. HEREBY AGREES TO BUY

QUANTITY	A minimum of 250,000 pounds but not over a maximum of 375,000 pounds to be so taken.
MATERIAL	"ELECTROMET" Brand Vanadium Pentoxide (V_2O_5) - Specifications as per letter attached.
PRICE	Eighty cents (80¢) per pound of V_2O_5, f.o.b. cars at Seller's works or warehouses, with freight charges allowed to Bridgeville, Pa., surcharge for Buyer's account.
TERMS	Net cash thirty (30) days from date of invoice.
DELIVERY	As required, in as nearly equal monthly quantities from date to December 31st, 1936 inclusive.
REMARKS	See letter attached which is pursuant to and part of this contract.

TERMS Net cash thirty (30) days from date of invoice.

DELIVERY As required, in as nearly equal monthly quantities from date to December 31st, 1936 inclusive.

REMARKS See letter attached which is pursuant to and part of this contract.

Payments to be made in U. S. lawful currency with exchange on New York. Each delivery to constitute a separate independent contract and to be governed by the terms hereof. Works tests of the Manufacturer of said material to govern settlements.

All agreements of the Seller herein are subject to and contingent upon strikes, riot, war, commandeering or requisitioning or allotting to others in priority to the Buyer by the Government, invasion, fire, explosion, accident, delays in procuring sufficient and suitable raw materials, curtailment or failure in obtaining sufficient electrical power, delays of carriers, and/or other delays beyond the reasonable control of the Seller and/or the Manufacturer, affecting either the Seller and/or the Manufacturer of such ferro-alloy, PROVIDED, HOWEVER, that in case of and upon the happening of any such event whereby the total output of the Manufacturer's plants of ferro-alloys and/or other products which the said plants are or may be then engaged in producing, is curtailed, or a portion or all of said output is commandeered or requisitioned or allotted to others in priority to the Buyer by the Government, then the Seller shall use its best efforts to fairly and equitably pro rate any ferro-alloys, which may be produced at said plants and which are not commandeered or requisitioned or allotted to others in priority to the Buyer by the Government, between the Buyer and its other customers of ferro-alloys under contracts, on the basis of the respective minimum monthly tonnages of the particular ferro-alloy to be delivered to the Buyer and to such other customers under the provisions of such contracts, but the Seller shall be released from any and all its other obligations hereunder, provided however, that any ferro-alloy sold under the agreement but not delivered to the Buyer, at the times herein provided for shall be delivered by the Seller as soon thereafter as practicable, taking into consideration the requirements of such ferro-alloy of all other customers of the Seller.

No change in or addition to the terms or provisions hereof shall be made unless approved by an executive officer of the Seller in writing.

Whenever the Seller shall have any doubt about the Buyer's responsibility, it may decline to make further deliveries hereunder until the Buyer shall have satisfied the Seller of his responsibility or shall have paid for such further deliveries in advance.

If freight is allowed increase, it is based on present existing freight rates and if such freight rates vary up or down on unshipments made hereunder the price of such shipments shall be increased or decreased as the case may be by the respective amounts of such freight increase or decrease. Buyer shall pay to Seller such excise taxes and other special taxes as now are or hereafter may be imposed upon Seller resulting from sale or delivery under this agreement.

If the Buyer fails to make payments or commits any other default under the terms of this or any other contract between the parties hereto and such failure or default shall continue after notice thereof from the Seller to the Buyer, then the Seller shall have the right, at its option, without further notice, either to defer any further deliveries hereunder or to stop any shipments in transit hereunder or to cancel or terminate such contract or contracts; and no waiver by the Seller of its right to take advantage of any such failure or default shall stop the Seller to insist on its strict rights in case of and as to any subsequent failure or default.

After the Buyer has accepted same, to render this instrument binding upon Electro Metallurgical Sales Corporation, it must be approved in writing by an executive officer of said Corporation.

ELECTRO METALLURGICAL SALES CORPORATION.

ACCEPTED:

VANADIUM CORPORATION OF AMERICA

BY Chas Rees

Vice President

BY _____ SALES AGENTS

APPROVED J M Bruce

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CABLE ADD. "FERROALLOY" NEW YORK

[redacted]

CODES: WESTERN UNION
LIEBER'S A B C 5TH EDITION

ELECTRO METALLURGICAL SALES CORPORATION

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MEMORANDUM OF SALE

(IN DUPLICATE)

CONTRACT No. N-10870

September 15th, 1933

ELECTRO METALLURGICAL SALES CORPORATION A CORPORATION OF NEW YORK HEREBY AGREES TO SELL AND

Vanadium Corporation of America OF New York, N. Y. HEREBY AGREES TO BUY

QUANTITY	A minimum of 1,000,000 pounds but not over a maximum of 1,250,000 pounds to be so taken.
MATERIAL	Vanadium Pentoxide (V_2O_5) - Specifications as per letter attached.
PRICE	Eighty Cents (80¢) per pound of V_2O_5, f.o.b. cars, seller's works or warehouses, with freight charges allowed to Bridgeville, Pa., surcharge for buyer's account.
TERMS	Net cash tenth of month following date of invoice.
DELIVERY	In equal monthly quantities from date to December 31, 1934 inclusive.
REMARKS	See letter attached which is pursuant to and part of this contract.

[fol. 336]

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MATERIAL	Vanadium Pentoxide (V_2O_5) - Specifications as per letter attached.
PRICE	Eighty Cents (80¢) per pound of V_2O_5, f.o.b. cars, seller's works or warehouses, with freight charges allowed to Bridgeville, Pa., surcharge for buyer's account.
TERMS	Net cash tenth of month following date of invoice.
DELIVERY	In equal monthly quantities from date to December 31, 1934 inclusive.
REMARKS	See letter attached which is pursuant to and part of this contract.

Payments to be made in U. S. gold coin or its equivalent in currency with exchange on New York. Each delivery to constitute a separate independent contract and to be governed by the terms hereof. Works' tests of the Manufacturer of said material to govern settlements.

All agreements of the Seller herein are subject to and contingent upon strikes, riot, war, commandeering or requisitioning or allotting to others in priority to the Buyer by the Government, invasion, fire, explosion, accident, delays in procuring sufficient and suitable raw materials, curtailment or failure in obtaining sufficient electrical power, delays of carriers, and/or other delays beyond the reasonable control of the seller and/or the Manufacturer, affecting either the Seller and/or the Manufacturer of such ferro-alloy, PROVIDED, HOWEVER, that in case of and upon the happening of any such event whereby the total output of the Manufacturer's plants of ferro-alloys and/or other products which the said plants are or may be then engaged in producing, is curtailed, or a portion or all of said output is commandeered or requisitioned or allotted to others in priority to the Buyer by the Government, then the Seller shall use its best efforts to fairly and equitably pro rate any ferro-alloys, which may be produced at said plants and which are not commandeered or requisitioned or allotted to others in priority to the Buyer by the Government, between the Buyer and its other customers of ferro-alloys under contracts, on the basis of the respective minimum monthly tonnages of the particular ferro-alloy to be delivered to the Buyer and to such other customers under the provisions of such contracts, but the Seller shall be released from any and all its other obligations hereunder, **provided however**, that any ferro-alloy sold under the agreement but not delivered to the Buyer at the times herein provided for shall be delivered by the Seller as soon thereafter as practicable, taking into consideration the requirements of such ferro-alloy of all other customers of the Seller.

No change in or addition to the terms or provisions hereof shall be made unless approved by an executive officer of the Seller in writing.

Whenever the Seller shall have any doubt about the Buyer's responsibility, it may decline to make further deliveries hereunder until the Buyer shall have satisfied the Seller of his responsibility or shall have paid for such further deliveries in advance.

If freight is allowed hereunder it is based on present existing freight rates and if such freight rates vary up or down on any shipments made hereunder the price of such shipments shall be increased or decreased as the case may be by the respective amounts of such freight increase or decrease. If any excise tax is now or hereafter imposed upon the Seller, resulting from sale or delivery under this agreement, the Buyer shall also pay the amount thereof to the Seller.

If the Buyer fails to make payments or commits any other default under the terms of this or any other contract between the parties hereto and such failure or default shall continue after notice thereof from the Seller to the Buyer, then the Seller shall have the right, at its option, without further notice, either to defer any further deliveries hereunder or to stop any shipments in transit hereunder or to cancel or terminate such contract or contracts; and no waiver by the Seller of its right to take advantage of any such failure or default shall stop the Seller to insist on strict rights in case of and as to any subsequent failure or default.

After the Buyer has accepted same to render this instrument binding upon Electro Metallurgical Sales Corporation, it must be approved in writing by an executive officer of said Corporation.

ELECTRO METALLURGICAL SALES CORPORATION.

BY _____ SALES AGENTS

APPROVED: _____ PRESIDENT

ACCEPTED:

VANADIUM CORPORATION OF AMERICA

BY _____ President

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[fol. 337]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 53 FOR IDENTIFICATION

INTER-COMPANY CORRESPONDENCE

COMPANY U.S. Vanadium Corporation

LOCATION Rifle, Colorado.

TO Mr. J. R. Van Fleet
LOCATION New York City, N.Y.

DATE December 22, 1933.
SUBJECT Paradox Process

Dear Van:

In the enclosed letter on the results of research recently conducted at Rifle, and the data sheets on the detail thereof, we have tried to assemble data which will have a bearing on the the most important questions of vanadium policy which will be before you.

Following our last discussion on the matter in which you brought up the question of the adaptability of the Vanadium Corporation of America to an enlarged scheme of operation, it has seemed to me necessary that we should bring our ideas together to decide what will be the most economical and up to date plant of a large capacity, in its treatment features, and if we can fit the Vanadium Corporation plant into such a scheme of things without the sacrifice of good design and operation. I know that this is your idea.

As covered in its essentials in the enclosed letter, I have worked over as much of the operating data available on the Rifle operation in order to define what will be required in a new plant to eliminate past weak points of design. The operation and function of a salt roast plant will, however, be strongly altered by the addition of an acid treatment step as outlined.

From a consideration of the recovery of uranium in a slime portion of the ore, the acid treatment has developed

in research to the point that important changes in roasting practise and reduction of costs are indicated. I feel that we would not want to design a larger roasting plant at this time without the establishment of factors now indicated which would alter our final design.

If we can operate one roaster, and recover 80,000 pounds of vanadium per month, then instead of a three roaster plant in the future we would consider two roasters, and possibly a different type. As a large part of a plant cost is in the roaster unit, this is an important consideration as you are aware.

I am enclosing with this letter a plan showing the present mill buildings of the Vanadium Corporation of America and the property lines around them. They have, by recorded document, a right of way over the Hutchings property to the north and east of the 20 acres on which the mill is built. It is this adjoining Hutchings property, on the north and east, that I have referred to as being desireable to obtain in advance of any operation at this point, and which is necessary for housing and additional expansion of plant.

As the result of several preliminary trial layouts, a small scale sketch of one enclosed, it is my opinion that the present installation of the roaster building and roaster, [fol. 338] and the leach building, will fit into a larger scheme of operation without loss of efficiency. There is room for additional capacity in conjunction with these units to the north and east.

The coal mine, tramway to the mill and general arrangement can scarcely be improved upon. I have gone over the mine and tram in detail recently and outside of a change in the method of loading tram buckets and larger gates for coarse coal there is little change indicated. I believe that the present estimated cost of coal at $2.25 per ton at the mill will be much improved.

The principal changes in the plant to treat a larger tonnage will be new power plant, new ore bind and crushing arrangement, and a precipitation building. The considera-

tion of a power plant should involve a water tube boiler installation of higher efficiency than the fire tube type now used, and probably a modern steam turbine generator set. The details of which will have to be developed by more study on the question.

From the layout of the present buildings you can probably get a preliminary idea of the possibilities of larger additional installations.

My idea now would be to value the Vanadium Corporation plant for the units available for expansion. From present costs we can value

18 foot Skinner roaster, steel mill building, stack and dust collector	$ 57,000
Leach building, mill type, 60X72 feet	13,500
Coal Mine and Tramway, bins and property	25,000
Housing in Naturita	4,000
2 portable compressors, Tools and equipment	8,000
Motors, pumps and equipment usable	12,000
2000 tons of ore stockpiled at mill at $7.00	14,000
Approximately 1600 tons of ore blocked out on Maggie C Claim, Long Park at $3.00	4,800
	$138,300

There is a considerable warehouse stock, bolts etc. which we have not gone over in detail. You will understand that this list is not a complete summary of the items of possible value, but the main items which can be used in a larger operation, or a single roaster operation as needed.

I have not completed, at this time, the study of additional ore deposits in the region tributary to the Paradox Valley, and the relationship of these deposits to the Vanadium Corporation mill, but this information will be sent to you as soon as possible.

Presuming that vanadium production will be called for early in 1935 my suggested schedule of proceedure would be about as follows.

1st. Make some arrangement for obtaining the Vanadium Corporation plant early in 1934, and purchase the additional ranch land needed for expansion.

[fol. 339] 2nd. Using facilities of the Vanadium Corporation, such as offices and labratory, start the drawing up of final plans for plant changes at the Vanadium Corporation Plant to start one roaster and leach unit with provision for expansion of tonnage. Boiler installation for enlarged plant can be designed, and finished estimates made of this work during the early spring. Labratory work to start on the further investigation of the process, especially the treatment of iron cake, and uranimum. Plans drawn up for the salt evaporation plant.

3rd. As spring floods permit, on the Dolores River, start the salt work, with the schedule of starting evaporation in July, 1934.

4th. Changes and alterations in the Vanadium Corporation plant to start as soon as plans are available.

It would be then suggested to start the operation with one roaster, as soon as units for complete treatment were available, and continue the enlargement of plant, if necessary, while operating the single roaster and with the benefit of the operating data thus secured.

In the research on vanadium ores by salt roasting, and the associated acid treatment now indicated, it is difficult to obtain a scale of tests intermediate in size between the tests we have so far conducted, and a full size unit, that would serve as larger checks on labratory work. The rabbling action and the temperature control of a large furnace cannot be simulated by hand control of a smaller experimental furnace, considering one in which a few hundred pounds are treated. The commpn method of comparison is to conduct the tests on a small scale with a blank or duplicate test on an ore on which large tonnage data is known, and from this make a plus or minus comparison. In our detail, as handled by George Smith at Rifle, the tests as tabulated are the actual results without allowance for possible improvement on large scale tests or oreration of

a larger roater with longer heat exposure and better rabbling conditions.

I have a sample of ore ready to send to the Research Labratory, on which I think that it would be of much value to have a check made of the principal features so far developed at Rifle. In particular they may be able to go into the iron cake and uranium recovery which we have not thouroughly investigated. If you will advise me of the correct address, which we do not have at Rifle, we will send this ore subject to your instructions. The sample will be represenative of the character of the ore from Long Park and the Club workings and will amount to about 25 pounds.

I have tried to cover as many of the points in the problem as possible, but in case you need more information let us know. Enclosed is data on ammonium meta-vanadate production which I had George Smith assemble with the idea of having this data on file in case of need.

While Dick has not assembled this months costs, on metavanadate, indications are that we are well under estimates made in September. We have 7,000 pounds of ammonium chloride left over, charged out in the process which was not needed largely due to economies of solution strength worked out on the last run. Our present recorded data will give better information for the ordering of raw materials, in the future.

Yours very truly

/s/ Blair Burwell

Scale Showing Present Installation 450 Ton Plant
& Proposed Extension Unit
DATE December 1939 SCALE 1" = 50'
ENGINEER Ben Powell

66-156 340

[Fol. 340]

[fol. 341]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 54 FOR IDENTIFICATION

Minutes of a regular meeting of the Executive Committee of the Vanadium Corporation of America, held at the office of the Company, No. 120 Broadway, in the Borough of Manhattan, City and State of New York, on the 4th day of April, 1935, at 11:30 o'clock in the forenoon.

The following members were present constituting a quorum:

Messrs. Alfred A. Corey, Jr., Presiding
Charles E. Adams
Parker Sloane
Samuel F. Pryor, Jr.

Mr. Oscar Cooper and Mr. P. J. Gibbons, Secretary of the Corporation, were also present.

The President reported in the matter of reduction in "quality extras" as applied to vanadium steels, which subject was fully discussed at and recorded in the minutes of the meetings of the Board of Directors on February 21 and March 21, 1935, that since the March 21st meeting the Alloy Steel Committee of the Iron and Steel Institute have definitely decided to recommend to the Board of the American Iron and Steel Institute those extras as listed by the Committee and concurred in by us. He stated that he felt confident that the Board would accept the recommendations of the Committee.

The President reviewed the Vanadium inventory status and reported that through negotiations with the Electro Metallurgical Sales Corporation the balance of 250,000 pounds of Vanadium Pentoxide, which was scheduled for delivery to us the second quarter of this year, has now been scheduled for delivery over the last half of the year, equal quantities coming to us in July, September and December.

He further stated in this connection that it would be unnecessary to resume operations in Peru this year and also that in the event business in Vanadium did not materially

increase it might be possible to make further purchases from Electro Metallurgical Sales Corporation for the year 1936. The present outlook would seem to warrant the pre- [fol. 342] diction that our best proposition would be to produce some amount in Peru and supplement our requirements by purchases of oxide, but that this decision can be delayed until October or November.

In the matter of Silico-Manganese, which had been previously mentioned in an informal way, the President now advised that we had contracted with Electro Metallurgical Sales Corporation for our requirements of Silico-Manganese over the balance of the year 1935 and that we were now negotiating with respect to our requirements of this commodity for the year 1936. The reason for this contract, the President stated, was the low selling price of the commodity and the high cost of manufacture and the further possibility that this commodity might not continue in demand as it had the last half of 1934 and the first quarter of 1935. Under the present arrangement, instead of having to absorb a loss on each ton shipped, we expect to at least break even and in some instances where we have favorable freight rates to show a small profit.

Due to the great amount of interest developed recently in the Perrin Processes, the President reported to the Committee that the Societe D' Electro-Chimie has been very insistent that we send representatives to France for the purpose of investigating these Processes as practiced in France. He stated that previous reports have been made to the Board that representatives of Bethlehem Steel Corporation are now in France and reports from them indicate a very considerable interest, which has been confirmed by Bethlehem Steel Corporation officials. The Republic Steel Corporation is also interested, a representative of their Metallurgical Department having spent most of yesterday in our offices in a conference with Mr. Andre Jaoul, a Director of the Societe D' Electro-Chimie, and our representatives. The President further stated that the interest of the United States Steel Corporation has been kept very much alive on this subject, a number of discussions having been held between the technical men of their Corporation and ours. For these reasons,

* * * * * * *

[fol. 343]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 60 FOR IDENTIFICATION

CONFIDENTIAL

AMERICAN URANIUM RESOURCES

BLAIR BURWELL

July, 1949

[fol. 344] AMERICAN URANIUM RESOURCES

About 1947, the newly formed Atomic Energy Commission created the Raw Materials Division for the procurement and development of raw uranium resources, including the development of an American supply. The Raw Materials Division followed the Manhattan District operations, and was created as a result of recommendations of an Advisory Board of officials of mining companies.

During the administration of the Manhattan District, the procurement of raw materials and the appraisal of American resources (as well as world resources) was carried out by contracting companies, using personnel with long experience in the industry. At the completion of the Manhattan District project, detailed reports were made as to availability and quantity of uranium resources in the United States by the Union Mines Company; and mining properties were selected and purchased for the Government in the Colorado Plateau Area for future supply to Government plants. These properties were the Gateway Mines in Nesa County, Colorado; the Slick Rock Mines in San Niguel County, Colorado; and leaseholds on the Navajo Reservation in Arizona.

In addition to appraisal and acquisition of uranium ore mines, this organization designed, built, and operated three plants in the Colorado Plateau Area for the expressed purpose of the recovery of uranium. An early and highly important output of uranium followed from Colorado Plateau resources at a time when the mines of Belgian Congo and Canada were not producing. This supply of uranium, in

a quantity between two and three million pounds of metal, reached the Manhattan District atomic metal separation plants at a critical time when supplies were badly needed, and was a vital and important contribution to the success of this undertaking. It may be noted that the *Fifth Semi-annual Report* of the Atomic Energy Commission, Page 5, prepared by the Raw Materials Division, states, "The United States has produced little uranium," which is not in accordance with the record of production.

In the pre-Atomic Commission activity period, a tremendous amount of detailed work was done and policies were formulated fo the future procurement of uranium from domestic or American ore resources. This work included the development of ore-processing methods, the operation of pilot plants, and the designing of future ore-processing plants. The relationship of future uranium production to the limitations of associated metals occurring with the uranium, with particular emphasis on vanadium, was particularly investigated at that time.

Because of the importance of this work on present considerations of American uranium production and the wide divergence between the policy of American uranium procurement of the Manhattan District and the present policy of the Atomic Energy Commission towards American resources, an understanding of the basic problem of uranium procurement is necessary.

In particular, this is emphasized because, failure to understand the technical problems and economic complexi-

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[fol. 345] ties of uranium ore production can lead to policies of procurement and development of uranium ores which would limit or interfere with the continuation of an adequate American supply for the future.

The industry of producing uranium is a special industry which in the past has been handled by a few companies with special and limited markets. The majority of ores containing uranium have been found and mined for the associated radium content (and this includes the American Colorado Plateau carnotite ores). Metals associated with uranium-radium and which are variously classified as by-

products or principal products of the ores include the silver content of the Canadian pitchblende ores, the palladium and gold content of the Belgian ores, and the vanadian content of the American carnotite ores. In many cases, the "tail wags the dog" when considering the associated metals which occur with uranium; and much production of uranium-bearing ores has been carried on for the associated metals during times when the markets of radium and uranium were depressed.

There were three main world resources of uranium ores which contributed to the atomic bomb job. They were: the Colorado Plateau carnotite ore region, the Belgian Congo Shinkolowbe Mine, and the Idarado Mine in Canada. Of the three, the first in point of discovery and early production was the American deposits, the mined ores of which have contained (as of 1941) in excess of 5,000,000 pounds of uranium. The Colorado Plateau was the only important world resource actively producing uranium from ores in substantial quantities in 1941.

The Belgian Congo deposits, after producing approximately 4,500,000 pounds of uranium metal and after the establishment of control of world markets of radium and uranium by price cutting and cartel manipulation, was inactive in 1943, with its mines filled with water.

The Canadian deposits (Idarado Mines) which constituted the third important area, suspended operations in 1938 after producing approximately 500,000 pounds of uranium; and its mine was not operating in early 1940. This world resource was under a cartel agreement and control at the start of atomic energy development, and was only restored to production by direct action of the Canadian Government.

Thus, at the start of the Manhattan Project, the principal quantity of uranium available for that job was contained: (1) in uranium metal stocks in the hands of the Belgian cartel (which included approximately one-half million pounds of American-produced uranium acquired by the cartel); (2) residue and dump piles discarded in the sorting of low-grade ores in Africa; and (3) uranium production

of the Colorado Plateau under way from tailings and ores stored and accumulated for the purpose of uranium recovery. In all directions, the production of uranium itself was affected by restrictions and limitations of markets for the associated radium or vanadium contained in its ores.

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[fol. 346] But most important at that time in connection with American production, was the developing problem of vanadium marketing which shortly resulted in an investigation by the Department of Justice and subsequent indictment of the two vanadium companies for restrictive agreements and price setting. Because this trend was recognized at that time, the planning of production of uranium as a by-product of future unstable vanadium markets was not considered; and, instead, the desirability of obtaining uranium free from these restrictions was the justification for extensive work on processing of ore to avoid excessive costs in unwanted or unmarketable vanadium. In other words, uranium was the metal required, and vanadium was considered a by-product. Needless to say, this did not meet with the approval of all the vanadium industry at that time, and in particular with the Vanadium Corporation of America; but, nevertheless, this was the carefully considered policy of that time.

It is pertinent to the question of future development of uranium resources in the United States to know what this monopoly suit is about and what it means to American uranium production of ores which contain vanadium.

The two companies of the United States responsible for practically all the production of vanadium are the United States Vanadium Corporation and the Vanadium Corporation of America. Neither of these companies was concerned with uranium production prior to 1938.

The United States Vanadium Corporation is a controlled subsidiary of the Electrometallurgical Company, a part of Union Carbide and Carbon Corporation, which conducts a ferro-alloy business, of which the most profitable portion is the production of ferro-chrome used in stainless steel. The ores of chrome are obtained by this company in Africa, and it also conducts European smelting operations. It

controls by far the largest part of the chrome-alloy business in this country.

The Vanadium Corporation of America is a separate company, principally engaged in vanadium production and sales. Before 1935, it obtained its vanadium from Peru or acquired it from the United States Vanadium Corporation. In order to forestall antitrust action on the ferrochrome business, an agreement was made between the Electrometallurgical Company and the Vanadium Corporation of America whereby the Vanadium Corporation of America was established as a competitor of Electrometallurgical Company, selling chrome alloys (supplied in large part by Electromet); and the Vanadium Corporation of America in return was allowed to maintain its vanadium markets (consisting of two thirds of all sales) without price cutting or competition by United States Vanadium Corporation.

In a period of time, the ability to produce vanadium by the United States Vanadium Corporation increased beyond its portion of the market; and at the same time, the mines of the Vanadium Corporation of America in Peru declined in productivity so that United States Vanadium Corporation was forced to sell its vanadium in a partially finished form to V. C. A., instead of reducing prices and expanding markets to take care of excess output.

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[fol. 347] As time went on, the Uravan Plant was constructed by the United States Vanadium Corporation, with capacity provided to supply V. C. A. with vanadium; and many millions of pounds of vanadium were handled between the two companies. However, declining sales and usages of vanadium were noted; and a careful engineering survey of vanadium markets was made by the industry. As a result of this investigation, it was found that the markets and usages of vanadium could be greatly increased and that much of its application in steel could be restored if the price of vanadium in alloy steel could be moderately reduced. Molybdenum was taking the place of vanadium in much alloy steel, not because it was better, but because the same benefit could be obtained with Molybdenum at a

lower cost. At that time, the United States Vanadium Corporation, having large and efficient plants, could produce vanadium more cheaply than the V. C. A. and could sell vanadium at a lower price into the steel industry required to restore markets, and could still make more money than by selling the raw material to its associate, the Vanadium Corporation of America. However, because this would cause the Vanadium Corporation of America to go out of business (and thus destroy the antitrust value of V. C. A. as a competitor in ferro-chrome), this remedy of disposal of excess vanadium was not applied; and the arrangement of subordinating U. S. V. vanadium business to African chrome sales continued. It may be said that this policy was bitterly contested by the operating management of U. S. V., who were required to accept restrictive sales policies over their objections.

Inasmuch as vanadium and uranium occur together in American Colorado Plateau ores, it was recognized that any policy which would artifically restrict or limit the exploration for and mining and disposal of the ores would also restrict and limit the development of uranium ores; and by this simple logic, it was apparent that it was dangerous to limit future uranium development and production by subordinating it to vanadium output.

With the investigation of the situation by the Department of Justice which led to a subsequent indictment on the facts herein stated, the arrangement between the Vanadium Corporation of America and United States Vanadium Corporation (whereby U. S. V. was to supply its associate with vanadium) was dropped; and the V. C. A. began operations in the Colorado Plateau field at its Naturita Plant (hitherto idle), obtaining the majority of its ore from the mines of independent producers and miners of ore in the region.

As a result, U. S. V., unable to dispose of its vanadium output to V. C. A. and unable to dispose of it as a finished product by reducing prices and enlarging markets (because of the continuing agreement between Electrometallurgical Company and V. C. A.) was forced to cut its mining and processing 80 per cent and to lay off its miners and operators in the Colorado region.

With the completion of the bomb and the Manhattan project, the majority of the plants in the region shut down or operated at half capacity, with the exception of the Naturita Plant of the V. C. A., which began the purchase of uranium-vanadium ores from independent miners at a

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[fol. 348] price (approved by Mr. David E. Lilienthal) of 35 cents per pound of U_3O_8 for average ores of the region.

When the Raw Materials Division of the Atomic Energy Commission was formed, the Commission, presumably in ignorance of the background and facts of the American situation which had developed prior to the creation of the Atomic Energy Commission, installed personnel and policies (guided principally by the council of the vanadium industry who, for natural reasons, wished to recapture the profits and opportunities which would result if American uranium production were channeled through their interests). The Vanadium Corporation of America, who had no experience in the production of uranium prior to 1940 and little successful experience in the production of vanadium from American ores (Their operations were confined to Peru prior to 1938.) expanded their operations in the Colorado area under secret contracts and arrangements with the newly formed Raw Materials Division; and assumed a leading position in the field. The policies and prices established under this arrangement led to a storm of protest from a hundred or more small independent miners who were not considered in the arrangement. This group did succeed, through the offices of Senator Johnson, in blocking the sale of the Monticello Plant to V. C. A. at a price of approximately 14 per cent of its cost, in the hope that some processing outlet would be salvaged for their ores in the future.

In the past year, the newly developing policy of the Atomic Energy Commission toward its domestic supply of uranium is given by Mr. John K. Gustafson, Manager of Raw Materials Operations of the Commission, December 17, 1948, in a rather amazing statement, in view of the record . . . quoting from Page 2 therefrom:

"The Colorado Plateau was the only area in the United States actually producing uranium. Production came from low-grade carnotite ore mined primarily for vanadium, with uranium recovered as by-product. (Comment No. 1) During the war the Manhattan District financed the construction and operation of two plants (Comment No. 2) for the extraction of uranium from tailings of Colorado vanadium plants and also purchased uranium concentrates produced as a by-product from the vanadium operations. Following the war it was tentatively decided by the Manhattan District to purchase only by-product uranium rather than to stimulate and support increased production by special incentives. (Comment No. 3) This position was based on the fact that the known uranium reserves of the Colorado Plateau were limited (Comment No. 4) and expensive to mine and process (Comment No. 5) and that the only advantage of an accelerated program would be to make this limited supply available sooner. Since the estimated annual production of the Colorado Plateau, even under an accelerated program, would be small in relation to total U. S. requirements and to supplies available from foreign sources, it appeared more economical to obtain the uranium as a by-product from vanadium operations which were geared to the vanadium market. (Comment No. 6) (See Page 6 for Comments)

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[fol. 349] *Comment No. 1*

Much of the ores herein involved were found and mined for radium-uranium recovery. In this operation radium-uranium was the principal product—vanadium a by-product.

Comment No. 2

The Manhattan District financed the construction and operation of four plants, not two.

Comment No. 3

Following the war, the Manhattan District suspended all operations in the Colorado Plateau Region. The

tentative decision to purchase uranium as a by-product was the policy of the newly formed Raw Materials Division, and the ensuing statement should not be incorrectly attributed to the inactive Manhattan District.

Comment No. 4

It would have been accurate here to have stated that this was an opinion of Dr. Gustafson after a few short visits to the region, and not a fact supported by Manhattan District investigations. After more than two years of surveys and field work, costing over $2,000,000 in Government money and as a result of the work of a large number of competent geologists and engineers of long experience in the field, a report was written in 1945 containing the following:

> "The Colorado Plateau carnotite deposits represent the largest and lowest cost reserves of uranium within our national boundaries and, possibly from the viewpoint of the ultimate tonnage of contained uranium they may surpass any other group of deposits in the world."

Comment No. 5

It is true that the ores are expensive to mine and to process, if methods of treatment of vanadium output are superimposed over the cheaper and less involved uranium recovery methods. However, the fact is that this area was the only one producing uranium on its own merit prior to the atomic bomb job, based on the economics of that time; and its costs of mining and processing were competitive with other world sources at that time.

Comment No. 6

This conclusion, in reading the statement, would be

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[fol. 350] presumed to be a natural conclusion by the Manhattan District rather than a new policy initiated subsequent to the project. The only logical explanation

of the policy developed here, in direct reverse of previous plans and policies is that this represents the effect of influence of the vanadium industry and that it is not based on Government interest.

As a result of this policy, Government plants have been turned over to the Vanadium Corporation of America for operation (The Durango Plant, leases and properties purchased for Government purposes (The Indian Reservation and Calamity Mines) have been assigned to the V. C. A. and U. S. V. for operation by secret contracts, and arrangements have been made of a similar nature for the processing of ores and delivery of uranium bought under Government contracts at the Naturita and Durango Plants.

It is important to understand something of the processing problem of treating Colorado Plateau ores, and in particular the reason for the present difficulties in the region from losses and inefficient processing now being charged in the press. The explanation herein is not an individual opinion of the problem; it is a statement of the past experience in treating the ores of the region, and is contained also in reports made by the writer to the Raw Materials Division in 1948.

The uranium content of Colorado ores is recoverable much more easily and with less expensive equipment than the vanadium content of the same ores, and with a much higher recovery of the total content than is experienced with vanadium.

About 90 per cent of all the uranium in the ores of the region can be recovered quite simply and at a low processing cost, and this includes the high lime ores of the region. The only reason high lime ores are now being rejected is because of the difficulty in recovering the vanadium content, not the uranium content, as the uranium can be easily recovered. If it is desired to recover uranium only, the cost of processing a ton of ore for this purpose (about $8.00 per ton) is approximately one half the cost of processing a ton of ore for vanadium recovery ($16.00 per ton).

With proper plant equipment for uranium recovery, from 80 to 90 per cent of all the uranium in the ore has been and can be recovered in a finished concentrate for atomic metal refineries. In this type of plant, the uranium is a principal product and vanadium is a by-product, recovered by processing steps following uranium recovery.

Vanadium recovery involves different chemistry and different equipment, and requires the roasting of the ore in a furnace. This roasting often changes the composition of the uranium content so that its subsequent recovery is reduced.

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[fol. 351] However, it is possible to recover a lesser amount of uranium (from 50 to 75 per cent) by following vanadium roasting with a cheap treatment, but the results in a low recovery of vital uranium. However, this does not greatly concern the vanadium operator who is making a profit on vanadium. In the Manhattan District operations, large tonnages of material rejected from plants of this type, in particular the Naturita Plant, were reclaimed, hauled 16 miles, and treated for this unrecovered uranium content. However, the losses in this method of treatment, which amount to from 50 to 30 per cent of the uranium contained in the ore, are not all recoverable in retreatment plants. A large amount is lost in dust and fume, and in soluble uranium reaching the sewers.

Needless to say, double treatment imposes added cost to the Government.

However, it is possible, well developed, and demonstrated that the Colorado ores can be efficiently and cheaply processed for their uranium content, if the needs and interests of vanadium production are subordinated to this purpose. The vanadium industry must be adjusted and continue on a revised and re-engineered basis—content with smaller profits on larger volume, if the full benefit of our uranium resources are to be developed and realized.

Recent disclosures of the result of subordinating uranium production to a position by-product to vanadium and "geared to the vanadium market" have come from engineers connected with the Atomic Energy Commission Raw Ma-

terial Division in Colorado. They reflect the growing concern of these engineers who are directly connected with field operations and the present policy of developing American Resources.

Blair Burwell/hjl
July 8, 1949.

[fol. 352]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 61 FOR IDENTIFICATION

[Handwritten notation—Burwell Memo.—Unit of Union Carbide & Carbon Corp.]

MEMORANDUM ON VANADIUM AND THE OPERATIONS OF THE UNITED STATES VANADIUM CORPORATION

The operations of this company, ~~with which I was familiar or had direct contact~~, can be separated into four different periods of time ~~in which different policies were carried out as to the production and sales of vanadium~~.

The first was the period in which Union Carbide and Carbon Corporation, through its wholly-owned subsidiary, the Electro Metallurgical Company, made investments in vanadium mines and facilities for the production of ferro vanadium, investigated competing sources of vanadium and established its policy for the long-time production of vanadium alloys. This initial period extended from 1926, when the United States Vanadium Company and the Rifle mill was acquired, to 1933 when this operation was closed and the plant dismantled due to surplus stocks of unsold vanadium.

In 1926 the United States Vanadium Corporation was producing approximately 600,000 pounds of V_2O_5 in concentrates and 300,000 pounds of vanadium metal in alloy annually. At that time, the only other producer of vanadium alloys in the United States was the Vanadium Corporation of America. Vanadium Corporation of America

obtained its vanadium from ore and concentrates imported into the United States from a mine in Peru (the Minas Ragas). It converted this foreign supply to ferro vanadium in the United States and sold approximately 1,000,000 pounds of V contained in alloy annually, or the equivalent of 2,000,000 pounds of V_2O_5.

The sales of Vanadium Corporation of America were [fol. 353] about three times as large as Union Carbide and Carbon Corporation.

The Union Carbide and Carbon Corporation entered into the vanadium business in 1926, because they had investigated the uses of vanadium in steel and believed that the markets and consumption of vanadium could be increased. The original plant, which was purchased, was increased to a capacity of 1,200,000 pounds of oxide annually in 1926 for this reason, which would produce 600,000 pounds of vanadium metal contained in ferro vanadium. The group in Union Carbide and Carbon Corporation which made these decisions were Mr. John B. Hufford (Manager of Purchases), Mr. Benjamin O'Shea, President of Electro Metallurgical Company, and Mr. Giles Mead, Treasurer of Union Carbide and Carbon Corporation. I participated in discussions of the future of this alloy with this group. As far as I know, no questions were raised by the Electro Metallurgical Sales Company at that time as to the ability of the company to sell the vanadium produced at the expanded operations. Mr. Moyer Price was the head of Electro Metallurgical Sales at that time.

In 1927 and 1928, I was called upon, together with Mr. J. R. Van Fleet, to recommend to the company the purchase of additional reserves of vanadium ore. I was advised by Mr. O'Shea that the company believed that the merits of the alloy (vanadium) justified Union Carbide and Carbon Corporation in further increasing their production of ferro vanadium, and they were desirous of taking the leading position in the production and sales of the metal. At that time Vanadium was the leading alloy used in engineering steels and the use of ferro molybdenum or molybdenum in steel was secondary to that of vanadium.

[fol. 354] At that time, I was aware of large quantities of vanadium and uranium contained in dumps and mines near Naturita in Montrose County, Colorado, which could be acquired under advantageous terms. I, therefore, recommended to Mr. O'Shea, Mr. Mead and Mr. Hufford that these properties be purchased. As a result of this recommendation the mine properties in Montrose County were visited by Mr. O'Shea, Mr. Mead, Mr. Hufford, Mr. Van Fleet and myself on or about 1928, and negotiations for the purchase of the properties was initiated through Mr. John B. Hufford and myself. However, before making this acquisition, it was decided that an investigation of Vanadium Corporation of America's mines in Peru should be made to determine the position of this company to produce vanadium in the future. It was discussed that if Union Carbide and Carbon Corporation undertook to become the largest producer of vanadium alloys, this would involve price competition with Vanadium Corporation of America, and it was essential that Union Carbide and Carbon Corporation have accurate knowledge of what Vanadium Corporation of America's reserves and costs were in order to establish the price for vanadium alloy metal that was necessary to sell the contemplated output.

Accordingly, Mr. O'Shea and Mr. Mead arranged for Mr. J. R. Van Fleet to get this information. As such data could not be obtained with the consent of Vanadium Corporation of America, Mr. Van Fleet made a personal examination of the mine in Peru without the knowledge of Vanadium Corporation of America, and obtained a detailed estimate of reserves and cost of production of ore in vanadium.

This report stated that the rich ore of Minas Rogas was largely depleted, with rising costs and estimated Vanadium [fol. 355] Corporation of America costs from 75 to 85 cents per pound of V_2O_5 in concentrates delivered into the United States. The engineering estimates of United States Vanadium Corporation forecast that Electro Metallurgical Sales could sell ferro vanadium at the cost of production of Vanadium Corporation of America and have a profit of twenty cents per pound of V metal. The price of vanadium in oxide in this calculation was $0.80 per pound.

Based upon this favorable competitive position anticipated by the Van Fleet report, United States Vanadium Corporation made the purchase of mines of the Standard Chemical Company and other groups in Montrose County. As Vanadium Corporation of America was also seeking properties in the same region at this same time, a policy was established of active investigation of small mine holdings in this region with the object of acquiring them to forestall the entry of Vanadium Corporation of America into this potentially important field.

[Marginal handwritten notation—Policy—"Acquire and control all new mining areas which offered an opportunity for future expansion and operation." Obviously if competing operations started (VCA or otherwise) we could not develope or control the operations in new mining areas because such operations were usually based on the best properties and most accessable mines in any new district. Therefore the policy was to purchase such new mines as soon as possible and before they passed in the hands of competitors.]

However, this projected operation ran into difficulties after 1928 because Electro Metallurgical Sales did not sell the increased output from Rifle. In 1927, United States Vanadium Corporation produced 1,243,655 pounds of V_2O_5 in concentrates and Electro Metallurgical Sales disposed of 331,028 pounds of V_2O_5 in ferro vanadium. In 1928 output was 1,234,966, sales 984,994. In 1929, output was 1,204,280, sales 690,444. In 1930 output was 1,080,249, sales 296,716. In 1931 output was 1,726,116, sales 319,902. In 1932 output was 724,225 and sales 144,626. No reduction in the sales price of ferro vanadium was made as originally planned. As a result, at the end of 1932 all operations of United States Vanadium Corporation closed down with 4,000,000 [fol. 356] pounds of vanadium oxide in concentrates in storage unsold. Organization was disbanded and the Rifle Plant was dismantled.

After the operations of United States Vanadium Corporation ceased, the situation which was forecast by J. R. Van Fleet in regard to Vanadium Corporation of America developed. Vanadium Corporation of America was unable

to get enough vanadium from Peru to meet its market requirements.

If the original plan of United States Vanadium Corporation, as to its operations, had been carried out, then United States Vanadium Corporation would have disposed of its excess stock as ferro vanadium in the market which Vanadium Corporation of America was unable to supply and assume the leadership in sales of the alloy which its production potential justified.

However, instead of this Electro Metallurgical Sales began supplying Vanadium Corporation of America with the concentrates it needed to make ferro vanadium, at a price of approximately $0.80 per pound of vanadium, which was $0.30 a pound less than would have been realized if Electro Metallurgical Sales had sold the same oxide in ferro vanadium.

This began the second period of United States Vanadium Corporation's operations when production was resumed at mines in Colorado and a new plant was placed in operation at Uravan, Colorado, in 1934. The object of the installations was to supply Vanadium Corporation of America with vanadium concentrates after Rifle stocks were exhausted, as well as to supply Electro Metallurgical Sales with the concentrates needed to make ferro vanadium for the limited Electro Metallurgical Sales.

[fol. 357] In this period, lasting until 1942, United States Vanadium Corporation produced the largest part of American vanadium consumption in the form of concentrates, but at the same time no proportional increase in sales by Electromet occurred.

[Marginal handwritten notation—Policy (one illegible word) from property acquisitions—"Acquire and control all new mining areas which offered an opportunity for future expansion and operation."]

The arrangement of sales of vanadium oxide to Vanadium Corporation of America to support their ferro vanadium sales was not in accordance with the plans and policies with which the vanadium operations of United

States Vanadium Corporation had been started. Therefore, both Mr. Van Fleet and myself objected to this sales arrangement. However, the sales policies on ferro vanadium were directed by Mr. Fred Haggerson (who had replaced Mr. Ben O'Shea as President of Electro Metallurgical Company, and was also President of United States Vanadium Corporation) and Mr. Wm. Priestly of Electro Metallurgical Sales. The policy of vanadium sales had changed with this change in management. Policies in the mining and production of ore and in the acquisition of properties in Colorado were left in the hands of Mr. Van Fleet and myself. For this reason a situation developed of active competition between Vanadium Corporation, of America and United States Vanadium Corporation in the western mining areas at the same time that United States Vanadium Corporation was furnishing Vanadium Corporation of America with vanadium concentrates from its mines at a substantial reduction in the price of the vanadium oxide concentrates to others. The only exceptions to this western policy was when Mr. Van Fleet and myself were directed by Mr. Haggerson to cooperate with Vanadium Corporation of America in the west, such as in the matter of the Dry Valley claims of the Molybdenum Corporation [fol. 358] of America. There was much dispute within the corporation over this matter. In particular Mr. P. Gormely, who had become Vice President of Electro Metallurgical Company, took the same viewpoint as Mr. Van Fleet and myself. As a result of this discussion, carried out in a series of meetings between Gormely, Van Fleet, myself and others, Mr. McQuigg, a metallurgist, was delegated to report on the subject of vanadium uses and sales. This was contained in the McQuigg report.

[Marginal handwritten notation—The arrangements on FeV Sales, of which (one word illegible) had knowledge, or was advised, was that V.C.A. would set V prices in Ferro V (one word illegible) Oxide which E.M. Sales would not undercut and that E.M. Sales would not solicit sales from users of V who were customers of V.C.A.

My knowledge of this came from several sources, (1) Van Fleet, Gormely, Dutot (1941), and Ben O'Shea.]

(1946)

A third period and change in the operations of United States Vanadium Corporation began in 1942, with World War II, when limitations on vanadium usage by cost disappeared in the emergency need for the alloy in war. Production within the Colorado Plateau field was expanded many times with the rebuilding of the plant at Rifle and the construction of new plants at Durango and Monticello. Soon after a still more urgent need for the ores developed in the work on the atomic bomb.

In the anticipation of the use of uranium, United States Vanadium Corporation had begun the production of uranium in 1939 and by 1943 had large quantities of uranium concentrates, residues and tailings produced or in process for uranium production. As a result of this activity, as well as the reputation of Union Carbide and Carbon Corporation in the chemical processing field, the Manhattan District selected the Union Carbide and Carbon Corporation to undertake a major part of the atomic bomb job. A special group of Carbide executives was selected to do this work under the direction of Mr. J. R. Rafferty, Vice President of Union Carbide and Carbon Corporation and members of the Research Committee of Union Carbide and Carbon Corporation.

[fol. 359] This work involved:

1. The procurement of domestic uranium from the Colorado Plateau.
2. Surveys and appraisal of American and foreign resources of uranium.
3. Operation of the Oak Ridge plant.
4. Operation of uranium separating and refining plants.

At the same time changes were made in the organization of United States Vanadium Corporation which included the replacement of Haggerson by Van Fleet as President of United States Vanadium Corporation, myself as Managing Vice President of United States Vanadium Corporation, W. G. Haldane as Vice President of United States Vana-

dium Corporation, and J. M. Rafferty, Chairman of the Board of Directors of United States Vanadium Corporation. I was also placed on the Research Committee of which Mr. Rafferty was Chairman.

Under this new and wartime needs of vanadium and uranium there was no limiting factor on the production or sale of vanadium, and Electro Metallurgical Sales took no part nor were they included in the production of vanadium and uranium, and the policies of disposal. The production of uranium was under security restrictions.

During this time however, the problem of vanadium markets and sales which had developed in the period between 1933 and 1942 were thoroughly discussed between Mr. Rafferty, Mr. Van Fleet and myself, and with the representatives of the Manhattan District of Army Engineers, including Major General Groves. The situation was discussed and reported as follows:

[fol. 360] In anticipation of the successful development of the bomb and the development of Atomic Energy, engineering investigations indicated that national security depended upon the obtaining of a large domestic supply of uranium. The success in the separation of the isotope 4-235 or of plutonium depended principally on having sufficent U238 to make the separation possible because of low recoveries of the fissionable element. The initial production of the bomb was possible only because of the accumulation of uranium in tailings and residues prior to 1942 gave sufficient metal to work upon the rate of wartime consumption or conversion of U238 into its isotopes far exceeded the rate of production of uranium in ores at that time.

It was, therefore, evident that, following the war, the production of newly mined uranium must be increased greatly to make up for the exhaustion of stockpiled tailings of prior years. As the United States Vanadium ores and the ores of the then known Colorado Plateau contained about eight pounds of vanadium oxide for every pound of uranium oxide, we reported that one of three things would happen:

Either, first, that the vanadium-uranium ores of the Colorado Plateau would have to be produced and treated for recovery of both metals in a quantity about four times the current rate or to yield about 15,000,000 pounds yearly of V_2O_5 as a by-product. This would require that the industry would reduce prices to dispose of its product into new uses where high price had previously prevented its use, and that research in new uses would have to be undertaken;

Or, second, that metallurgy in the treatment of the Colo- [fol. 361] rado Plateau ores would have to be developed where uranium would be recovered by methods independent of vanadium recovery, leaving the vanadium in the form of residues or tailings which could be stored for future processing and recovery if needed. However, this would greatly increase the cost of uranium due to a lack of credit or return on the vanadium thus mined or purchased and stockpiled;

Or, third, that the production of uranium would be reduced to the amount obtainable as a by-product from vanadium production and in proportion to vanadium sales. In this case, due to low, post-war sales of V_2O_5, it was evident that if American uranium production would be limited to one pound for each eight pounds of V_2O_5 marketed and the total amount of U_3O_8 available for national defense would be less than 300,000 pounds of U_3O_8 yearly. In the case that the No. 3 situation developed, it was forecast that the United States would be utterly dependent on foreign uranium resources, regardless of the fact that the Colorado Plateau had more assured and potential reserves than any other region known of at that time.

The policy-making group at that time (Rafferty, Van Fleet, Burwell and Haldane) also discussed the fact that if the third eventuality developed and sales policies of V_2O_5 were restored at the end of the war, that this might develop into a situation of Government action against the corporation more serious than anti-trust action (which were based purely on commercial considerations) due to the relation of uranium to national security.

The policy group of this period did the following things:

[fol. 362] First: They recommended and obtained approval from the Army Engineers for large-scale pilot plant work to produce uranium independently of vanadium in case it was necessary to use the No. 2 eventuality. This was carried out, and approximately $375,000 spent in pilot plant work in Grand Junction, new plants designed and full reports made to the Manhattan District.

Second: They set sales arrangements for new products of vanadium and tungsten independently of Electro Metallurgical Sales to remove the limitations on United States Vanadium Corporation's operations of the past. This was done by the creation of the Metal Chemical Division of United States Vanadium Corporation, with sales directed by Carbide and Carbon Chemicals Company (which was headed by Mr. Rafferty).

Third: They recommended and carried out a policy of purchases of uranium-vanadium mine properties for the Government (Army Engineers) as a reserve for the United States; purchasing the Slick Rock properties from the North Continent Mines, and the Calamity Mesa properties from Molybdenum Corporation of America.

The Manhattan District, represented by General Groves, agreed on the policies, and through the Carbide policy group produced large quantities of uranium independent of vanadium production. They also approved and paid for research on uranium recovery from ores independent of vanadium recovery.

The third period ended with the firing of the bomb and the ending of the war.

A fourth period of operations and policy began with the [fol. 363] termination of the Manhattan District Project. In the beginning, all vanadium plants were shut down with the exception of the Rifle plant of the United States Vanadium Corporation, and the Naturita plant of the Vanadium Corporation of America. The marketing of ferro vanadium to war industries ceased and sales to industry started under the same conditions as existed prior to 1942.

The Atomic Energy Commission was organized to take over the work previously done by the Army Engineers,

after two years of suspension of domestic uranium mining and the closing of mines in the Colorado Plateau.

The problem of sales of vanadium again began, but the wartime policy group of United States Vanadium Corporation was superceeded by a group directed by Mr. Fred Haggerson (now President of Union Carbide and Carbon Corporation), Mr. Priestly, President of Electro Metallurgical Company, and Mr. Walter Remmers, Vice President of Electro Metallurgical Sales and Vice President of Electro Metallurgical Company. These men became, in effect, the post-war policy group.

The wartime policy group and the new post-war policy group had many conferences and disputes on the fundamental problems of vanadium markets and sales. Both Mr. Priestly and Mr. Remmers took the position, in meetings and discussions, that the use of uranium was questionable and a long time in the future, and that uranium production should be measured only in the quantities which could be produced as a by-product of vanadium production and sales. The dispute grew quite bitter and sometime personal. [Handwritten notation—Vanadium stocks unsold, of U.S.V. began to accumulate and operations were curtailed because of the inability of U.S.V. to dispose of its output.]

[fol. 364] It was during this time, and about 1946, that the anti-trust suit, long pending, was filed. Mr. Van Fleet advised me that he had taken copies of letters and records from his office at 30 East 42nd Street, to his apartment at 20 East 35th Street for the purpose of preserving them. He stated that they would be destroyed if left in the office files. I had many conversations with Mr. Van Fleet at this time, and he discussed the letters and records with me. He did not have any idea at the time he moved these letters to his apartment as to what he would do with them.

He particularly wanted to find out for sure whether Priestly, Haggerson and Remmers would attempt to control future uranium production by a directing or promoting or advising the Government in new policies of the Atomic Energy Commission, which would channel uranium

production through the vanadium companies (eventuality No. 3 previously described). Mr. Van Fleet was ill at that time with cancer, and had lost his oldest boy in the war. He was quite bitter against Haggerson and Priestly in his statements to me.

On or about the early part of 1947, Mr. Van Fleet arranged a meeting with me in Las Vegas, Nevada, to discuss the whole problem. At that meeting he stated that he knew that Priestly was carrying out his previous arrangements with Vanadium Corporation of America, and that he felt that it was hopeless to change the policy established by Priestly with the backing of Haggerson. (Mr. Rafferty was ill and could not help in the matter.) Mr. Van Fleet had had a cancer operation and felt sick. He stated that he had directed Mrs. Helen Orr to send the apartment files [fol. 365] on the vanadium matter to me at my home in Grand Junction if he became ill. He asked me to turn these over to the Government if this was necessary to block the policies of Priestly and Haggerson from holding up the uranium development of the Colorado Plateau.

Soon after this, Mr. Van Fleet died of cancer and the files came to me at Grand Junction. I held these for awhile, until I had checked to my satisfaction that the situation existed as anticipated by Mr. Van Fleet. Thereupon I turned the papers over to the Department of Justice.

I left the company and organized the Minerals Engineering Company at Grand Junction. In the period which followed 1946, I, therefore, had no connection with the operation of United States Vanadium Corporation; however, the events which transpired following 1946 have, in my judgment, confirmed the accuracy of the statements herein.

To begin with, the Atomic Energy Commission in a statement made by Mr. Gustafson in December 1947 stated:

> "The Colorado Plateau was the only area in the United States actually producing uranium. Production came from low-grade carnotite ore mined primarily for vanadium, with uranium recovered as by-product. During the war the Manhattan District financed the

construction and operation of two plants for the extraction of uranium from tailings of Colorado vanadium plants and also purchased uranium concentrates produced as a by-product from the vanadium operations. Following the war it was tentatively decided by the Manhattan District to purchase only by-product uranium rather than to stimulate and support increased production by special incentives. This position was based on the fact that the known uranium reserves of the Colorado Plateau were limited and expensive to mine and process and that the only advantage of an accelerated program would be to make this limited supply available sooner. Since the estimated annual production of the Colorado Plateau, even under an accelerated program, would be small in relation to [fol. 366] total U. S. requirements and to supplies available from foreign sources, it appeared more economical to obtain the uranium as a by-product from vanadium operations which were geared to the vanadium market."

Many secret briefs on the problem were given to Senator Millikin and Senator Johnson, at their requests, to combat the Atomic Energy Commission policy of non-development of uranium resources. The newspaper and briefs are the record of this time.

I estimate that the devolpment of the Colorado Plateau was delayed at least five years by the confusion and uncertainty induced by the shift in the policy of the United States Vanadium Corporation after the war. The "Uranium Boom", which developed after, confirms the accuracy of the predictions of United States Vanadium Corporation that the Colorado Plateau is one of the greatest, if not the greatest, in the World. Currently, it is the greatest source of uranium and is stated to be sufficient for our atomic needs. The present-known facts, when they are compared with the early announced policies of the Atomic Energy Commission on uranium procurement, substantiate the wartime policies of period three.

Blair Burwell
January 4, 1956

[fol. 367]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 65 FOR IDENTIFICATION

UNITED STATES VANADIUM CORP.

Grand Junction, Colorado

February 2, 1948

PERSONAL
&
CONFIDENTIAL

Mr. W. E. Remmers
Room 1712,
30 East 42d Street
New York 17, New York

Dear Walter:

I have received the letter of agreement of January 27 and your letter of January 8. The proposed agreement does not follow the spirit and intent of our Niagara discussion on January 15. Therefore, I would suggest to you that my personal situation be considered in accordance with my letter to you of January 13.

The proposed agreement does not give me any protection in the five-year period from arbitrary cancellation and loss of valuable invention rights. The agreement can be cancelled by the USV at any time without payment to me and with the forfeiture of any inventions previously assigned, upon the breach of any one of the provisions which could include, among others, the accidental or casual mention of the USV, U. C. and C. Corporation, or any of its subsidiaries in any publication or article; the credulity of USV in any rumor, gossip, or unsubstantiated report of ill word spoken by me of the Corporation. The agreement includes the printed form of a shotgun general release which, for ten dollars, releases the Corporation from all accounts,

agreements, sums of money etc. which, my attorney advises me, without question includes retirement funds, stock purchase plans etc.

Further, the agreement provides for the assigning of all patent and invention rights, past, present, and future, without regard to inventions which may be made in that portion of my time in the future not spent on Corporation work. And it also requires the obtaining of USV permission to all outside employment, which is, speaking mildly, a rather amazing conception of economic bondage.

I realize that you have had small time to take care of this matter, and realize the temptation of the Law Department to "throw the book" at such an agreement. I will be glad to work out the future settlement of my affairs along the lines of my January 13 letter or on any suggestion on your part which considers my reasonable rights as [fol. 368] inventor to the various processes: such as, the tungsten ore treatment and the Rifle processes.

My attorney suggests a study of my rights and position in this matter of inventions, which I have now requested him to do. I shall be glad to communicate his opinion later, if you should desire.

With best regards,

Yours very truly,

/s/ Blair Burwell
Blair Burwell

BB/hjl

[fol. 369]

FOR INTER-COMPANY CORRESPONDENCE

UNITED STATES VANADIUM CORPORATION

30 EAST 42ND STREET, NEW YORK 17, N. Y.

UCC

To Mr. Blair Burwell
Location Grand Junction, Colorado

Date January 28, 1948

Attention *Subject*
Copy to

Dear Blair:

Received your letter of Saturday, January 24th, with the interesting information concerning the news that you have picked up concerning AEC plans. It appears that the information in the West and that available to us here in the East is beginning to coincide to a much greater extent than was originally the case.

Enclosed you will find a letter of agreement with a general release form which have been prepared in the Law Department. The general release should be signed by you and a witness on the front side and notarized on the back. I hope that we will find this arrangement to work out to our mutual benefit.

Aside from the agreement for the moment, the AEC program seems to be taking a somewhat more definite form. Although there are still many uncertainties in the major portions of the program, it is still anyone's speculation as to what plan they may pursue.

With best regards I am

Yours very truly,
/s/ WALTER

WERemmers:
ms

[fol. 370]

January 27, 1948

Mr. Blair Burwell
Grand Junction, Colorado

Dear Mr. Burwell:

Your recent letters have proposed termination of your employment with United States Vanadium Corporation (hereinafter for convenience called "USV"). In a subsequent discussion with you recently it was agreed that you would continue in the employ of USV in the position of Consulting Engineer, with your request for termination applying only to the position of Vice President of USV.

You are to serve in the position of Consulting Engineer for USV for a period of five (5) years from February 28, 1948. Your salary shall be at the rate of Ten Thousand Dollars ($10,000) per year, payable in monthly instalments. You will be an employee of USV, with the privilege of participation in the Group Insurance Plan and the Retirement Plan. As such employee, you agree to devote as much of your time as we may request, but not more than one-half of your total working time, in performing work for USV, the nature and scope of your duties to be as determined from time to time by the Management of USV. Travelling or other expenses will be reimbursed only when authorized in advance by USV.

In view of your plans to take a vacation in February, your resignation as a Vice President of USV is accepted as of January 31, 1948. Your salary for February will be payable at the rate heretofore existent so that the revised rate of $10,000 per year will become effective on March 1, 1948.

It is, of course, understood that, since you will devote only one-half your time to working for USV, you will engage in other activities. However, since you are to be an employee of USV, participating in the Retirement Plan, and since you have and may acquire confidential information of a technical nature of USV, you agree not to engage in activities inimical to the interests of USV. Accord-

ingly, you agree to secure the consent of USV to carrying on such other activities as you may engage in during the period of this agreement.

The essence of this agreement is that good relations exist between the parties, and any utterances or conduct by either party of a prejudicial or an antagonistic nature toward the other party will thereupon give such other party the right to terminate this agreement in the manner hereinafter provided.

Any and all inventions, discoveries, process developments and methods of ore beneficiation heretofore made by you but not yet assigned to USV, or hereafter made or discovered by you during the period of this agreement, shall be the exclusive property of USV and shall be promptly disclosed and assigned by you to USV if USV considers the same to be of interest to it. If USV should, at its op- [fol. 371] tion, decide that it does not wish any such inventions, discoveries, developments, or methods to be assigned to it, they shall remain your exclusive property.

You agree not to publish any article or other written material mentioning USV, its parent company or any other subsidiary of the parent company, and not to disclose any confidential information of such companies unless USV grants you approval to do so.

All technical data, files, and other records of USV now or hereafter in your possession will be turned over promptly to USV.

The attached general release is an essential part of this agreement, and this agreement shall have no force and effect until such general release shall be executed by you and returned to us.

Each provision of this agreement is material, and the breach or failure to carry out any provision by either party shall give to the other party the right, at its option, to terminate this agreement by giving written notice to the party in default. Any such termination shall not affect any rights arising under this agreement prior to the date of such termination.

Would you please confirm the above agreement by signing one copy of this letter in the place indicated below and returning such copy to us for our files.

Very truly yours,

UNITED STATES VANADIUM CORPORATION

By /s/ W. E. Remmers
Executive Vice President

ACCEPTED:

/

Blair Burwell

STATE OF COLORADO,
COUNTY OF MESA, ss.:

This certifies that this is a true copy of a letter dated January 27, 1948, from Mr. W. E. Remmers to Blair Burwell, on which was affixed the signature of Mr. W. E. Remmers with which I am familiar.

HELEN J. LAURENT
Notary Public

Date: 11/27/48
My commission expires May 8, 1952.

Copy hjl-1/30/48

[fol. 372]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 67-A FOR IDENTIFICATION

INTER-COMPANY CORRESPONDENCE

(INSERT NAME)
COMPANY United States Vanadium Corp.

LOCATION New York City.

TO Mr. Blair Burwell,
LOCATION United States Vanadium Corp.,
Rifle, Colorado.

ATTENTION
COPY TO

DATE June 6, 1934.

ANSWERING LETTER DATE

SUBJECT PARADOX ESTIMATES

Dear Mr. Burwell:

I had a long talk with Mr. Gormely yesterday about the plants in the Paradox Valley. It appears that the Vanadium Corporation of America is going to be very much disappointed if we do not make some kind of an arrangement with them for using their plant and supplying them with a considerable amount of V_2O_5. The reasons, however, for erecting a new plant at the Standard Mill site, were considered logical and I think will meet with very little opposition.

It has been decided that we will not reopen any negotiations with the Vanadium Corporation until we have the complete figures on the new plant lay-out. In addition to this I think it is wise to have a complete lay-out, also, on the Rare Metals plant—just what alterations will be necessary, together with the re-arrangement, etc. In making up the sketches for the alterations of the Rare Metals plant be sure to make them as desirable, as far as possible, as the new plant lay-out. I have an idea that alterations along this line will run into more money than you have previously estimated and, of course, it will be to our advantage to have this estimate increased.

I called Mr. Reis of the Vanadium Corporation on the telephone this morning and he was much interested in the outcome of my visit to the Paradox. I told him, frankly, that we were making a complete study of the whole situation and that the old Standard Mill site presented a great many desirable features that his plant did not enjoy. I, also, asked permission to have access to their plant so that we could make our drawings and estimates for its reconstruction. This permission will, undoubtedly, be forthcoming but he said he would have to speak to Mr. Corey about it.

I have told them upstairs, that we would have the figures by August 1st, and all have agreed that we will have to proceed with construction some time this Fall.

Very truly yours,

/s/ J. R. Van Fleet

EW J.R.Van Fleet
IC

[fol. 373]

INTER-COMPANY CORRESPONDENCE

(INSERT NAME)
COMPANY United States Vanadium Corp.

LOCATION New York City.

TO Mr. Blair Burwell,
LOCATION United States Vanadium Corp.,
Rifle, Colorado.

ATTENTION
COPY TO

DATE June 6, 1934.

ANSWERING LETTER DATE

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Very truly yours,

/s/ J. R. Van Fleet

EW/J.R.Van Fleet
IC

[fol. 374]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 67-B FOR IDENTIFICATION

INTER-COMPANY CORRESPONDENCE

(INSERT NAME)
COMPANY U. S. Vanadium Corp.
LOCATION Naturita, Colorado

To Mr. J. R. Van Fleet,
LOCATION 30 East 42nd. Street, New York.

ATTENTION
COPY TO

DATE July 26, 1934.
SUBJECT Comparative Estimate on cost of erecting and operating plants at Uravan and the site of the V.C.A.

Dear Mr. Van Fleet:

We are sending to you an assembly drawing of the proposed plant layout using the location of the Vanadium Corporation as well as prints of the crushing and fine grinding unit as tentatively blocked out. The proposed plant is based on the requirement that an operation equal in efficiency to the proposed Uravan layout be made and on this analysis about the only installations of any value is the roaster and roaster building, the leach building, and the coal mine.

Attached is a detailed summary of the cost of moving ore, salt, and coal to each of the two plant sites covering the total positive and possible ore reserves which show an advantage to the Uravan site of $123,906. The factors which make up this difference are well known to you but the tabulation brings out the fact that the shorter ore haul to Uravan more than overbalanced the advantage of coal and salt haul. In addition the advantage of installed power at Uravan, both hydro-electric and oil engines, make a difference in the installation.

We made a survey of the mill site at the plant of the Vanadium Corporation of America and came to the con-

clusion that a system of conveyors and storage units as shown would be better than a hillside arrangement, partially because the slope of the hill near the present crusher building is not enough to get the required capacity without going up into the air with a truck ramp. The present crusher and grinding installation is so hopeless from the standpoint of labor attendance and capacity in planning for an extension of capacity that we did not consider the use of that part of the plant.

The arrangement of leaching tanks has been installed in the present leach building with an estimate for the cost of tearing out the present installation of drier, furnace, tanks, and leaching classifiers.

[fol. 375] The Uravan arrangement of boiler, turbine, fusion furnace etc., fits into the arrangement of the buildings so that this installation has been transferred, bodily as to plan and cost.

The total estimate of $302,368 is closely the same as the Uravan layout with the difference in the roaster and a portion of the coal mine. From this total cost we can deduct for equipment and materials useable on hand as follows:

1 Portable Compressor, 300 ft.	3,100
Rod Mill & Motor	3,312
187 KVA Turbine	9,815
Drills, pipe, track and warehouse supplies. Estimated	8,000
Housing at Naturita	4,000
	$28,227

In this design, as in the case of the Uravan design, the capacity can be increased to either two or three roasters without additional cost in ore crushing, leaching, or precipitation.

In comparing the coal mine of the Vanadium Corporation of America with our proposed layout on the Hansen tract we find several advantages in favor of the Hansen

tract. In the first place we can enter the coal on a one-half percent grade in favor of the load in comparison with the necessity of pulling coal up a three percent grade at the Vanadium Corporation Mine.

In considering a supply of coal it is evident that the sale of lump coal in connection with the production of stoker coal will be a considerable factor in obtaining low costs for stoker coal. For this reason on the Hansen layout we have provided a screen bin for lump coal, the location of which is close to the road to the town of Nucla and well situated for its purpose. The location of the VCA mine on a steep hillside away from roads and water is not so favorable for this consideration.

In this connection we investigated the cost of producing coal at the mine in question and although no records are available in the office, the foreman of the coal mine furnished us with enough information so that an estimate can be made.

From the labor used and the supplies consumed, the actual mining of coal cost from $2.25 to $2.50 per ton delivered to the tram site.

[fol. 376] We have included in our estimate enough to equip the coal mine with power and mining facilities equal with the Hansen tract.

Ore Reserves and Mining Properties

The Vanadium Corporation owns the following properties located in part in Long Park, in part near our Dolores group of claims:

Maggie C. Lode Claim
Maggie C. Mill Site
Media
Club No. 3
Club Sandwitch
Rose Bud
North Star
Black Rock
Cliff Dweller
Rajah Lode
Rajah Mill Site
Excelsior
Ocean Spray
American Eagle
Retribution
Big Chief
Big Chief No. 2

The principal claims of value are those located in or near Long Park. Of these the Maggie C. claim has developed 1600 tons of ore with a possible tonnage of 5,000 tons. In secondary claims near Long Park there is estimated a total of 5,000 tons of possible ore.

The total ore tonnage estimated is as follows:

Dump Ore at Mill	2,000 tons	
Positive Ore, Maggie C.	1,600 "	3,600
Possible Ore		10,000
Total Ore		13,600 Tons

The summary of the value of the Vanadium Corporation plant is as follows:

Difference in first cost of plant and Coal Mine	64,824
2,000 tons of ore at mining and depletion value	17,500
1,600 tons of positive ore	1,600
Machinery & Equipment	24,227
Value of Housing at Naturita	4,000
Total	$112,151

Due to the location in regard to present known ore reserves we can produce vanadium at a lower cost at the Uravan mill site.

[fol. 377] From the standpoint of operating economy we recommend the selection of the Uravan site as the location of a Paradox Plant.

Yours very truly,

/s/ Blair Burwell

BB-b

[fol. 378]

COMPARATIVE SUMMARY OF ORE RESERVES AND COST OF DELIVERY

TO

URAVAN AND VANADIUM CORPORATION PLANT SITES

Mine Group	Tons Ore Positive	Tons Ore Possible	Total	Grade V_2O_5	Pounds V_2O_5	Est. Mining Cost	Cost per Ton Delivered Uravan	Cost per Ton Delivered V.C.A.	Total Cost Uravan	Total Cost V.C.A.
*Club Dumps	10,000	6,000	16,000	1.75	560,000	*2.00	2.50	4.00	40,000	64,000
Club Ore	89,471	30,000	119,471	2.01	4,802,734	5.75	6.00	7.50	716,826	896,032
Long Park Dumps	12,200		12,200	2.32	566,080	.50	1.50	2.00	18,300	24,400
Long Park Ore	33,550	75,000	108,550	2.10	4,559,100	5.75	6.75	7.25	732,712	786,988
Jo Dandy Dump	600		600	1.85	22,200	1.00	3.75	2.50	2,250	1,500
Jo Dandy Ore	29,400	23,000	52,400	1.87	1,959,760	5.00	7.75	6.50	406,100	340,600
Monogram	4,700	25,000	29,700	3.00	1,782,000	8.00	11.25	10.00	334,125	297,000
Dolores	5,320	30,000	35,320	2.63	1,857,832	8.00	9.00	10.25	317,880	362,030
Julian Dump	700		700	2.00	28,000	1.00	3.50	4.75	2,450	3,325
Thunderbolt	4,400	5,000	9,400	1.76	330,880	7.00	9.75	8.50	91.650	79,900
Shamrock		12,000	12,000	2.00	480,000	7.00	8.00	9.25	96,000	111,000
Secondary Groups		25,000	25,000	2.00	1,000,000	7.00	8.50	9.50	212,500	237,500
Total Ore	190,341	231,000	421,341		17,948,586			$	2,970,793	3,170,407
			Coal at Uravan		123,580	Tons	2.50		308,950	
			Coal at V.C.A.		146,103	"		1.50		219,154
			Salt		*34,000	"	7.12	5.95	242,080	202,300
			Standard Mill Tailings		16,000	"	.25	1.50	4,000	24,000
							Total Cost	$	3,525,823	3,649,729
							Difference in Favor Uravan		$ 123,906	

* Sorting of Dump Ore.

[fol. 379]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 67-C FOR IDENTIFICATION

INTER-COMPANY CORRESPONDENCE

(INSERT NAME)
COMPANY Electro Met. Company LOCATION New York

TO Mr. F. P. Gormely
LOCATION Room 1714

ATTENTION
COPY TO Mr. F. H. Haggerson
Mr. J. M. Price

DATE July 23, 1934

ANSWERING LETTER DATE

SUBJECT

Dear Mr. Gormely:

As recently requested by you, we have made a survey of the potential markets for the future use of vanadium. Our report is based upon facts obtained from large users of alloy steels and data obtained from our own records of shipments of ferrovanadium. Table No. I shows the number of different customers to whom we sold ferrovanadium during the past five years. The inference to be drawn from this table indicates that there has been no wide spread use among steel makers. The quantity shipped to the majority of these customers has been relatively small.

TABLE I

	Number of Customers		
Year	Open Hearth	Special	High Speed
1930	31	11	13
1931	32	11	8
1932	25	15	6
1933	30	12	12
1934 (5 months)	22	8	10

Table No. II shows the quantity of each of our three grades sold during the past five years. The large increase in open hearth shipments during 1933 and 1934 are accounted for by business received principally from two customers, the U.S. Steel Corporation and the Republic Steel Corporation.

TABLE II

Year	Quantity Sold		
	Open Hearth	Special	High Speed
1930	79,632 lbs.	64,980 lbs.	3,772 lbs.
1931	102,036	56,206	470
1932	43,616	21,606	564
1933	227,461	43,399	1,366
1934 (5 mths)	109,895	32,816	1,623

Table No. III shows the percentage of our total shipments to two customers.
[fol. 380]

TABLE III

1934 (five months)		
U.S. Steel Corporation	57,485 pounds	= 52.2%
Republic Steel Corporation	43,920 pounds	= 40.0%
1933		
U.S. Steel Corporation	107,728 pounds	= 47.4%
Republic Steel Corporation	100,107 pounds	= 44.0%

A brief summary of our findings at the leading automobile manufacturers is as follows:

Ford Motor Company

There will be no substantial change in tonnage of vanadium steel. Years ago they changed from vanadium to carbon steel for springs. Believe vanadium unnecessary for most purposes as heat treated carbon steel gives as good results. Continuing to use vanadium steel for ring gears. Fatigue tests run on 1.40% chromium 0.12% vana-

dium steel did not show up as well as carbon steel for same purpose. McCarroll thinks vanadium steel will be gradually replaced by carbon steels and cheaper alloy steels.

GENERAL MOTORS CORPORATION

Boegehold, Chief Metallurgist, says vanadium steels are being replaced by cheaper steels. Chrome vanadium still used for rear springs (Chevrolet) but the front end now has helical springs which are silico manganese. Cadillac only is using chrome vanadium valves. Other companies using molybdenum steels for helical springs but think this is where manufacturer is interested in Molybdenum Company.

CHRYSLER

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White Motor Trucks

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[fol. 382] On the other hand, in the manufacture of steel castings there seems to be an increase in the use of vanadium as an alloying element with chromium, nickel or manganese in order to improve impact values and control grain size. The vanadium addition for castings rarely exceeds 0.10%. In the manufacture of high speed tool steel the percentage of vanadium, in many cases, has been increased from 1.25% to 2.00%. These steels are generally made in the electric furnace or induction furnace where vanadium is recovered from the scrap and the consumption of ferrovanadium is relatively small compared with engineering steels generally made in the open hearth furnace.

In drawing conclusions from the information outlined above, it seems that we cannot expect any great increase in the consumption of vanadium for the next two or three years. On the other hand, it is possible that the consumption might fall off very materially since the market depends almost entirely upon the automotive field where economy of construction might eliminate it entirely if all the car builders were to adopt the same engineering principles.

It would therefore seem wise for us to dispose of our vanadium resources either in the form of ferrovanadium

or vanadium oxide as promptly as possible. Because of the standing of the Vanadium Corporation as ferrovanadium producers, it would be to our interest to encourage them as much as possible in their development work. If, for the want of a satisfactory supply of vanadium oxide, they were to discontinue their sales effort in promoting the use of vanadium steel, we would likewise suffer in our ferrovanadium sales because of a falling off in the use of vanadium steels. It seems to me that as long as they continue their efforts in promoting the use of vanadium steels we will benefit both in the direct sale of ferrovanadium and any vanadium oxide we might sell to them.

Very truly yours,

/s/ W. J. Priestley

WJP:EVL

[fol. 383]

In United States District Court

Plaintiffs' Exhibit No. 67-D for Identification

[Handwritten notation—Mr. Van Fleet Sorry you did not get a copy before—JP—7 31]

Electro Met. Company — New York

Mr. F. P. Gormely — July 23, 1934
Room 1714

Mr. F. H. Haggerson
Mr. J. M. Price

Dear Mr. Gormely:

As recently requested by you, we have made a survey of the potential markets for the future use of vanadium. Our report is based upon facts obtained from large users of alloy steels and data obtained from our own records of shipments of ferrovanadium. Table No. I shows the number of different customers to whom we sold ferrovanadium during the past five years. The inference to be drawn

from this table indicates that there has been no wide spread use among steel makers. The quantity shipped to the majority of these customers has been relatively small.

TABLE I

Year	Number of Customers		
	Open Hearth	Special	High Speed
1930	31	11	13
1931	32	11	8
1932	25	15	6
1933	30	12	12
1934 (5 months)	22	8	10

Table No. II shows the quantity of each of our three grades sold during the past five years. The large increase in open hearth shipments during 1933 and 1934 are accounted for by business received principally from two customers, the U.S. Steel Corporation and the Republic Steel Corporation.

TABLE II

Year	Quantity Sold		
	Open Hearth	Special	High Speed
1930	79,632 lbs.	64,980 lbs.	3,772 lbs.
1931	102,036	56,206	470
1932	43,616	21,606	564
1933	227,461	43,399	1,366
1934 (5 mths)	109,895	32,816	1,623

Table No. III shows the percentage of our total shipments to two customers.
[fol. 384]

TABLE III

1934 (five months)

U.S. Steel Corporation	57,485 pounds	= 52.2%
Republic Steel Corporation	43,920 pounds	= 40.0%

1933

U.S. Steel Corporation	107,728 pounds	= 47.4%
Republic Steel Corporation	100,107 pounds	= 44.0%

A brief summary of our findings at the leading automobile manufacturers is as follows:

Ford Motor Company

There will be no substantial change in tonnage of vanadium steel. Years ago they changed from vanadium to carbon steel for springs. Believe vanadium unnecessary for most purposes as heat treated carbon steel gives as good results. Continuing to use vanadium steel for ring gears. Fatigue tests run on 1.40% chromium 0.12% vanadium steel did not show up as well as carbon steel for same purpose. McCarroll thinks vanadium steel will be gradually replaced by carbon steels and cheaper alloy steels.

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Boegehold, Chief Metallurgist, says vanadium steels are being replaced by cheaper steels. Chrome vanadium still used for rear springs (Chevrolet) but the front end now has helical springs which are silico manganese. Cadillac only is using chrome vanadium valves. Other companies using molybdenum steels for helical springs but think this is where manufacturer is interested in Molybdenum Company.

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White Motor Trucks

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[fol. 386] On the other hand, in the manufacture of steel castings there seems to be an increase in the use of vanadium as an alloying element with chromium, nickel or manganese in order to improve impact values and control grain size. The vanadium addition for castings rarely exceeds 0.10%. In the manufacture of high speed tool steel the percentage of vanadium, in many cases, has been increased from 1.25% to 2.00%. These steels are generally made in the electric furnace or induction furnace where vanadium is recovered from the scrap and the consumption of ferrovanadium is relatively small compared with engineering steels generally made in the open hearth furnace.

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Very truly yours,

WJP.EVL

[fol. 387]

INTER-COMPANY CORRESPONDENCE

(INSERT NAME)
COMPANY Electro Met. Company LOCATION New York

To Mr. F. P. Cormely
LOCATION Room 1714

ATTENTION Mr. F. H. Haggerson
COPY TO Mr. J. M. Price

DATE July 23, 1934

ANSWERING LETTER DATE

SUBJECT

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Very truly yours,

/s/ W. J. Priestley

WJP.EVL

[fol. 391]

In United States District Court

Plaintiff's Exhibit No. 67-E for Identification

U. S. Vanadium Corporation, New York City.

August 10, 1934.

Mr. F. H. Haggerson,
Room 1715, Building.

VANADIUM SITUATION.

Dear Mr. Haggerson:

On January 1, 1934 we had in stock 3,461,000 pounds of V_2O_5 as fused vanadium oxide, and an equivalent of 642,000 pounds V_2O_5 in ferro-vanadium at the various plants—Rifle, Niagara, Columbiana and Welland—making a total inventory of 4,103,000 pounds V_2O_5 available

Fused V_2O_5	—	3,461,000 lbs.
V_2O_5 in FeV	—	642,000 "
Total V_2O_5 on 1/1/34	—	4,103,000 "

The above total available V_2O_5 is greater by 53,000 lbs. than the total given in my letter of January 30, 1934 due to a correction in the Niagara inventory figures used.

Up to August 1st for this year, sales have amounted to an equivalent of 795,200 lbs. V_2O_5 of which 483,200 lbs. were sold as fused oxide to the Vanadium Corporation of America, and 312,000 lbs. were contained in ferro-vanadium. There is yet to be delivered 550,400 lbs. V_2O_5 on the Vanadium Corporation order, and FeV sales for the last five months of this year may be estimated as containing an equivalent of 123,400 lbs. V_2O_5.

1934 Sales — Equivalent V_2O_5—		
Fused V_2O_5 to Aug. 1st		483,200 lbs.
V_2O_5 in FeV	—	312,000 "
Balance VCA order	—	550,400 "
V_2O_5 in FeV estimated 5 months	—	123,400 "
Total 1934 — — —		1,469,000 "

According to the above, on January 1, 1935, we should have available an equivalent of approximately 2,634,000 lbs. V_2O_5.

V_2O_5 on hand 1/1/34	4,103,000 lbs.
V_2O_5 Sales 1934	1,469,000 "
Jan. 1, 1935 Available	2,634,000 "

—2—

[fol. 392] *Past Record*—A look at the records may be interesting in consideration of what may be the future trend of the vanadium business. Sales of V contained in ferro, with the V_2O_5 equivalent, for the first seven months of this year have been as follows:

Month	Contained V — Lbs.	Equivalent V_2O_5 Lbs.
January	13,503	25,660
February	14,930	28,380
March	64,792	123,130
April	44,895	85,320
May	10,968	20,840
June	4,519	8,590
July	10,566	20,080
Total	164,173	312,000

Sales of V contained in ferro, with the V_2O_5 equivalent, for the eight years we have owned the U.S. Vanadium Corporation, have been as under:

Year	Contained V Lbs	Equivalent V_2O_5 Lbs.
1927	163,870	311,350
1928	492,500	935,750
1929	345,220	655,920
1930	148,400	281,960
1931	158,710	301,550
1932	70,300	133,570
1933	286,410	54[illegible]180
1934 (est.)	229,200	435,400
Total	1,894,610	3,599,680

Sales of ferro-vanadium for the last five months of 1934 are estimated at 65,000 lbs. contained V or an equivalent of 123,400 lbs. V_2O_5. In addition to the total equivalent of 3,600,000 lbs. V_2O_5 sold in ferro 1,250,000 lbs. has been sold or is reserved for the Vanadium Corporation of America in fused vanadium oxide and 120,000 lbs. in odd lots of fused vanadium oxide, red cake and ammonium metavanadate were sold to the trade.

Total V_2O_5 sold in FeV	3,600,000 lbs.
Sold or reserved for VCA	1,250,000 "
Red Cake and Metavanadate	120,000 "
Total V_2O_5 sold	4,970,000 "

—3—

[fol. 393] At the risk of becoming tiresome, one more tabulation will complete the statistical picture. The tabulation below shows the pounds of V contained in all ferro-vanadium shipments made in the United States, by years, from 1927 to 1933 inclusive. The shipments of the U. S. Vanadium Corporation for each year and the proportion these shipments bear to the whole, are also given:

Year	Total lbs. V in FeV	U.S.V. Lbs. V in FeV	U.S.V.%
1927	1,236,570	163,870	13
1928	1,590,550	492,500	31
1929	1,494,290	345,220	23
1930	713,480	148,400	21
1931	515,220	158,710	31
1932	235,120	70,300	30
1933	747,630	286,410	38
	6,532,860	1,665,410	25

The proportional increase for 1933 is, probably, due to having obtained most of the U. S. Steel Corporation's business for that year. Half of this business was placed with the Vanadium Corporation of America during 1934. For estimating purposes it may be assumed that we will continue to get about 30% of the vanadium business.

Future Sales:

Mr. Priestley states, in his letter to Mr. Gormely, dated July 23, 1934, that no great increase in the use of vanadium can be expected over the next two or three years, but that the use may be expected to decrease. He, also, states that a very slight increased use of vanadium in castings is indicated.

It may safely be assumed that the total vanadium sales for 1934 will equal the 1933 total, or approximately 750,000 lbs. V in FeV, assuming our proportion of these sales as being 30%, then our 1934 sales will equal 225,000 lbs. which is, approximately, as we have estimated on Page 2. Assuming further, that improved business conditions, stimulating the steel industry, may offset the apparent decrease in the use of vanadium alloys, our vanadium sales may be estimated at approximately 225,000 lbs. V in FeV each year for the next two or three years. At least, we should be prepared to furnish this amount, and the situation will be watched closely for evidence of any change toward the upward side.

According to the above assumptions, the Vanadium Corporation of America will require about 1,000,000 lbs. V_2O_5 each year to carry their business. Our future sales to the VCA will, probably, be a question of price and we will, probably, be asked to continue furnishing them with V_2O_5

—4—

[fol. 394] as in the past year. The Peruvian Government reduced the export tax on vanadium products the latter part of June at the request of the VCA. The reduction re-established the old export rate in effect prior to 1930. The VCA are preparing to ship the 400 to 500 tons vanadium concentrates now in Grace & Company's warehouse at Callao. The contents of these concentrates is estimated at about 200,000 lbs. V_2O_5.

The present sales' contract with VCA expires April 1, 1935, and the V_2O_5 reserved for VCA in the estimate on page 1, takes credit for the full amount unfilled of the total order of 1,250,000 lbs. With the imports from Peru, the VCA requirements for 1935 will, probably, be 500,000 lbs. V_2O_5 additional only. For 1936 they should require 1,000,000 lbs.

Effect Upon Stocks:

It is estimated on page 1 that we will have an equivalent of 2,634,000 lbs. V_2O_5 on hand January 1, 1935. Of this amount approximately, 634,000 lbs. may be assumed as already worked up into FeV. The Columbiana operations to maintain stock against sales, will probably be 500,000 lbs. with an additional 500,000 lbs. possibly sold to VCA, the V_2O_5 stock will appear about as under on January 1, 1936.—

V_2O_5 On Hand 1/1/35		2,634,000 lbs.
" In FeV		634,000 "
Available V_2O_5 in Fused Oxide 1/1/35		2,000,000 "
1935 Sales FeV	500,000 lbs.	
VCA 1935	500,000 "	1,000,000 "
On Hand 1/1/36		1,000,000 "

It may be seen from the above that although sales might decrease somewhat, our entire stock of V_2O_5 in fused oxide will be exhausted in 1936 if we continue to supply VCA with their requirements.

Paradox Ore Reserves:

We own most of the known vanadium resources in the Paradox Valley. There is, measured and mined out on dumps on our property, a total of 148,170 tons of ore containing 5,300,000 lbs. of recoverable V_2O_5. In addition, we have partially developed by underground workings and core drilling, 225,000 tons containing 8,100,000 lbs. recoverable V_2O_5—

Developed and On Dumps, V_2O_5		5,300,000 lbs.
Partially Developed	"	8,100,000 "
Total		13,400,000 "

—5—

[fol. 395] There is, also, a prospective ore tonnage which is more or less problematical, but which can be reasonably estimated at, approximately, 10,000,000 lbs. recoverable V_2O_5.

There are a number of other properties in the Paradox Valley or vicinity which are, more or less in the prospective state. Two or three of these groups of claims are attractive from a production standpoint. No single group, however, at present has sufficient ore reserves to warrant the installation of a reduction plant. They are somewhat scattered, two groups being in the McIntyre District, and one group in Gypsum Valley.

Paradox Plant Plans:

Several conversations were had with the Vanadium Corporation of America last Spring in reference to making some kind of an arrangement for future production in the Paradox Valley. It was thought desirable to purchase the Naturita Plant of the VCA or make some other production arrangement with that company. From these conversations it was evident that VCA did not feel disposed to make

any kind of an arrangement which would not leave them pretty much in control of the situation. It was, also, evident that any purchase price for the Naturita Plant would, eventually equal the full amount of their investment. Our opinion was that the Naturita Plant was almost a total loss and that VCA would not have sufficient ore reserves to be in a position to dictate.

During the past Summer we have made a complete survey of the Paradox Valley situation, both as regards plant construction, salt and coal supplies, and VCA ore resources. During our conversations VCA has always maintained that they had readily available 3,000,000 pounds recoverable V_2O_5. Our survey of the situation discloses that they actually have, approximately, 220,000 lbs. recoverable V_2O_5 in developed and possible ore supply on property which they now own.

Preparation for production operations in the Paradox Valley will consist of provision for the mill, salt works, coal mine, mines and roads, and housing.

A survey of the VCA Naturita Plant discloses the fact that with the exception of the roaster installation the plant must be almost entirely rebuilt to put it in an efficient and satisfactory operating condition with regard to recovery and costs. The present plant was not a metallurgical success and the fused oxide produced therein was at a cost in excess of 75¢ per pound of V_2O_5.

Comparative estimates on reguilding the VCA Plant, and constructing a new plant on our own mill site, shows that the difference in cost will amount to about $65,000 as follows:

—6—

[fol. 396]

	VCA Naturita	USV Standard
Mill	$211,255.	$261,673.
Salt Works	14,091.	14,091.
Coal Mine	10,380.	16,687.
Mines & Roads	32,642.	39,739.
Housing	34,000.	34,000.
Total =	$302,368.	$366,192.

The estimate further shows that other equipment and supplies at the VCA Naturita Plant will amount to an additional $28,000 in favor of the Naturita installation.

The operation at the Standard mill site will be cheaper than at the Naturita site, the principal item in this estimate being the difference in ore haul. About 90% of our ore reserves are adjacent to the Standard mill site. Using the Naturita site this ore must be hauled an additional fifteen (15) miles. It is estimated that the saving in haul alone, at the Standard Mill site, will amount to approximately $125,000 for the known ore reserves; this figure will be about doubled when the prospective reserves are taken into account, since most of these are adjacent to the Standard site.

The Standard mill site location has been named "URAVAN" being a combination of the abbreviations for "uranium" and "vanadium". If a plant is constructed at that site it will, probably, be known as the Uravan Plant which will be the name of the Postoffice.

In regard to this plant site it might be added that the transportation facilities with the outside, will be greatly facilitated within the next year. The State and County are building a road down the Dolores River direct to Grand Junction which will greatly aid communications with the outside. The use of this direct road to Grand Junction will eliminate freight transfers to the narrow gauge railroad from Montrose to Placerville. This road will, also, make the distance 15 miles closer to Grand Junction than the VCA Naturita plant.

The logical location for a plant in the Paradox Valley, from a production standpoint, is this old Standard site on the San Miguel River, 15 miles below Naturita. It has the advantage, also, of 200 hydro electric horse-power already installed. Regardless of the plant location, however, this power will be utilized in the mining operations.

Although it may not be necessary to begin plant construction in the Paradox this Fall, there is certain preliminary work which can be done now to the best advan-

tage. This consists of re-installing the ditch and flume for the hydro electric power at the mine, the installation of salt works and, possibly, the opening up of a new coal mine.

The salt works and the power will be needed whether an arrangement is made with VCA or not. The water in the Dolores and San Miguel Rivers, this Fall, is lower than ever before known which would, probably, make the power

—7—

[fol. 397] and salt installation cheaper. It is estimated the salt works will cost, approximately, $14,000 and the power work is estimated at, approximately, $6,000.

There is not much work needed at the coal mine in order to get that in shape for equipment. This work would, probably, amount to about $2,000. We have an option on this coal property, expiring September 1st; and the price on this is $1,200. for the property. It contains an abundance of coal for our purposes and can be cheaply mined.

If an arrangement is made to use the VCA Naturita plant we would not need this coal mine, but one of the strong talking points of VCA last Spring, was the location of the coal at their plant. They do not intend to sell their coal mine with the plant, but figured that we would pay for their coal at approximately, $3.00 per ton. Owning the above-mentioned, attractive coal property would eliminate any such argument. We, also, think the price of $1,200 on this coal land is very much less than can be secured later on, if we build the plant at the Standard mill site. It is recommended that this coal property be purchased.

I have discussed with you the other work which I think best to do this Fall, and you have given your permission to proceed with it. The work of cleaning out the power ditch is now under way and the salt ponds will be constructed as soon as we have the right under our Government lease.

Although our present stocks of fused vanadium oxide are sufficient to satisfy demands until 1936, it would seem desirable to economically continue the construction of the Paradox Plant and have it in operation in 1935. By so

doing we can start production with a single unit plant and very slowly accumulate stock above our own needs, which will enable us to be on top of the vanadium situation as regards sales to the VCA, without making any immediate provision for a larger capacity plant.

It can be recommended that 15 or 20 men be employed at the Standard mill site continuously, doing the excavating and building the necessary roads, etc. which will have to be done before actual construction of the plant is begun. This working crew could have the power canal cleaned out, install one of the compressors from Rifle, prepare all foundations and put in the water supply, and be all ready for actual plant construction in the Spring of 1935. Under this plan expenditures would amount to from $3,500 to $5,000 per month.

Very truly yours,

EW/J.R.Van Fleet
IC

[fol. 398]

U. S. Vanadium Corporation, New York City.

August 10, 1934.

Mr. F. H. Haggerson,
Room 1715, Building.

VANADIUM SITUATION.

Dear Mr. Haggerson:

On January 1, 1934 we had in stock 3,461,000 pounds of V_2O_5 as fused vanadium oxide, and an equivalent of 642,000 pounds V_2O_5 in ferro-vanadium at the various plants—Rifle, Niagara, Columbiana and Welland—making a total inventory of 4,103,000 pounds V_2O_5 available

Fused V_2O_5	—	3,461,000 lbs.
V_2O_5 in FeV	—	642,000 "
Total V_2O_5 on 1/1/34	—	4,103,000 "

The above total available V_2O_5 is greater by 53,000 lbs. than the total given in my letter of January 30, 1934 due to a correction in the Niagara inventory figures used.

Up to August 1st for this year, sales have amounted to an equivalent of 795,200 lbs. V_2O_5 of which 483,200 lbs. were sold as fused oxide to the Vanadium Corporation of America, and 312,000 lbs. were contained in ferro-vanadium. There is yet to be delivered 550,400 lbs. V_2O_5 on the Vanadium Corporation order, and FeV sales for the last five months of this year may be estimated as containing an equivalent of 123,400 lbs. V_2O_5.

1934 Sales — Equivalent V_2O_5—		
Fused V_2O_5 to Aug. 1st		483,200 lbs.
V_2O_5 in FeV	—	312,000 "
Balance VCA order	—	550,400 "
V_2O_5 in FeV estimated 5 months	—	123,400 "
Total 1934 — — —		1,469,000 "

According to the above, on January 1, 1935, we should have available an equivalent of approximately 2,634,000 lbs. V_2O_5.

V_2O_5 on hand 1/1/34	4,103,000 lbs.
V_2O_5 Sales 1934	1,469,000 "
Jan. 1, 1935 Available	2,634,000 "

—2—

[fol. 399] *Past Record*—A look at the records may be interesting in consideration of what may be the future trend of the vanadium business. Sales of V contained in ferro, with the V_2O_5 equivalent, for the first seven months of this year have been as follows:

Month	Contained V — Lbs.	Equivalent V_2O_5 Lbs.
January	13,503	25,660
February	14,930	28,380
March	64,792	123,130
April	44,895	85,320
May	10,968	20,840
June	4,519	8,590
July	10,566	20,080
Total	164,173	312,000
Total	164,173	312,000

Sales of V contained in ferro, with the V_2O_5 equivalent, for the eight years we have owned the U.S. Vanadium Corporation, have been as under:

Year	Contained V Lbs	Equivalent V_2O_5 Lbs.
1927	163,870	311,350
1928	492,500	935,750
1929	345,220	655,920
1930	148,400	281,960
1931	158,710	301,550
1932	70,300	133,570
1933	286,440	544,180
1934 (est.)	229,200	435,400
Total	1,894,610	3,599,680

Sales of ferro-vanadium for the last five months of 1934 are estimated at 65,000 lbs. contained V or an equivalent of 123,400 lbs. V_2O_5. In addition to the total equivalent of 3,600,000 lbs. V_2O_5 sold in ferro 1,250,000 lbs. has been sold or is reserved for the Vanadium Corporation of America in fused vanadium oxide and 120,000 lbs. in odd lots of fused vanadium oxide, red cake and ammonium metavanadate were sold to the trade.

Total V_2O_5 sold in FeV	3,600,000 lbs.
Sold or reserved for VCA	1,250,000 "
Red Cake and Metavanadate	120,000 "
Total V_2O_5 sold	4,970,000 "

—3—

[fol. 400] At the risk of becoming tiresome, one more tabulation will complete the statistical picture. The tabulation below shows the pounds of V contained in all ferro-vanadium shipments made in the United States, by years, from 1927 to 1933 inclusive. The shipments of the U. S. Vanadium Corporation for each year and the proportion these shipments bear to the whole, are also given:

Year	Total lbs. V in FeV	U.S.V. Lbs. V in FeV	U.S.V.%
1927	1,236,570	163,870	13
1928	1,590,550	492,500	31
1929	1,494,290	345,220	23
1930	713,480	148,400	21
1931	515,220	158,710	31
1932	235,120	70,300	30
1933	747,630	286,410	38
	6,532,860	1,665,410	25

The proportional increase for 1933 is, probably, due to having obtained most of the U. S. Steel Corporation's business for that year. Half of this business was placed with the Vanadium Corporation of America during 1934. For estimating purposes it may be assumed that we will continue to get about 30% of the vanadium business.

Future Sales:

Mr. Priestley states, in his letter to Mr. Gormely, dated July 23, 1934, that no great increase in the use of vanadium can be expected over the next two or three years, but that the use may be expected to decrease. He, also, states that a very slight increased use of vanadium in castings is indicated.

It may safely be assumed that the total vanadium sales for 1934 will equal the 1933 total, or approximately 750,000 lbs. V in FeV. assuming our proportion of these sales as being 30%, then our 1934 sales will equal 225,000 lbs. which is, approximately, as we have estimated on Page 2. Assuming further, that improved business conditions, stimu-

lating the steel industry, may offset the apparent decrease in the use of vanadium alloys, our vanadium sales may be estimated at approximately 225,000 lbs. V in FeV each year for the next two or three years. At least, we should be prepared to furnish this amount, and the situation will be watched closely for evidence of any change toward the upward side.

According to the above assumptions, the Vanadium Corporation of America will require about 1,000,000 lbs. V_2O_5 each year to carry their business. Our future sales to the VCA will, probably, be a question of price and we will, probably, be asked to continue furnishing them with V_2O_5

—4—

[fol. 401] as in the past year. The Peruvian Government reduced the export tax on vanadium products the latter part of June at the request of the VCA. The reduction reestablished the old export rate in effect prior to 1930. The VCA are preparing to ship the 400 to 500 tons vanadium concentrates now in Grace & Company's warehouse at Callao. The contents of these concentrates is estimated at about 200,000 lbs. V_2O_5.

The present sales' contract with VCA expires April 1, 1935, and the V_2O_5 reserved for VCA in the estimate on page 1, takes credit for the full amount unfilled of the total order of 1,250,000 lbs. With the imports from Peru, the VCA requirements for 1935 will, probably, be 500,000 lbs. V_2O_5 additional only. For 1936 they should require 1,000,000 lbs.

Effect Upon Stocks:

It is estimated on page 1 that we will have an equivalent of 2,634,000 lbs. V_2O_5 on hand January 1, 1935. Of this amount approximately, 634,000 lbs. may be assumed as already worked up into FeV. The Columbiana operations to maintain stock against sales, will probably be 500,000 lbs. with an additional 500,000 lbs. possibly sold to VCA, the V_2O_5 stock will appear about as under on January 1, 1936.—

V_2O_5 On Hand 1/1/35		2,634,000 lbs.
" In FeV		634,000 "
Available V_2O_5 in Fused Oxide 1/1/35		2,000,000 "
1935 Sales FeV	500,000 lbs.	
VCA 1935	500,000 "	1,000,000 "
On Hand 1/1/36		1,000,000 "

It may be seen from the above that although sales might decrease somewhat, our entire stock of V_2O_5 in fused oxide will be exhausted in 1936 if we continue to supply VCA with their requirements.

Paradox Ore Reserves:

We own most of the known vanadium resources in the Paradox Valley. There is, measured and mined out on dumps on our property, a total of 148,170 tons of ore containing 5,300,000 lbs. of recoverable V_2O_5. In addition, we have partially developed by underground workings and core drilling, 225,000 tons containing 8,100,000 lbs. recoverable V_2O_5—

Developed and On Dumps, V_2O_5	5,300,000 lbs.
Partially Developed "	8,100,000 "
Total	13,400,000 "

—5—

[fol. 402] There is, also, a prospective ore tonnage which is more or less problematical, but which can be reasonably estimated at, approximately, 10,000,000 lbs. recoverable V_2O_5.

There are a number of other properties in the Paradox Valley or vicinity which are, more or less in the prospective state. Two or three of these groups of claims are attractive from a production standpoint. No single group, however, at present has sufficient ore reserves to warrant the installation of a reduction plant. They are somewhat scattered, two groups being in the McIntyre District, and one group in Gypsum Valley.

Paradox Plant Plans:

Several conversations were had with the Vanadium Corporation of America last Spring in reference to making some kind of an arrangement for future production in the Paradox Valley. It was thought desirable to purchase the Naturita Plant of the VCA or make some other production arrangement with that company. From these conversations it was evident that VCA did not feel disposed to make any kind of an arrangement which would not leave them pretty much in control of the situation. It was, also, evident that any purchase price for the Naturita Plant would, eventually equal the full amount of their investment. Our opinion was that the Naturita Plant was almost a total loss and that VCA would not have sufficient ore reserves to be in a position to dictate.

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Comparative estimates on reguilding the VCA Plant, and constructing a new plant on our own mill site, shows that the difference in cost will amount to about $65,000 as follows:

—6—

[fol. 403]

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Although it may not be necessary to begin plant construction in the Paradox this Fall, there is certain preliminary work which can be done now to the best advantage. This consists of re-installing the ditch and flume for the hydro electric power at the mine, the installation of salt works and, possibly, the opening up of a new coal mine.

The salt works and the power will be needed whether an arrangement is made with VCA or not. The water in the Dolores and San Miguel Rivers, this Fall, is lower than ever before known which would, probably, make the power

—7—

[fol. 404] and salt installation cheaper. It is estimated the salt works will cost, approximately, $14,000 and the power work is estimated at, approximately, $6,000.

There is not much work needed at the coal mine in order to get that in shape for equipment. This work would, probably, amount to about $2,000. We have an option on this coal property, expiring September 1st; and the price on this is $1,200. for the property. It contains an abundance of coal for our purposes and can be cheaply mined.

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I have discussed with you the other work which I think best to do this Fall, and you have given your permission to proceed with it. The work of cleaning out the power ditch is now under way and the salt ponds will be constructed as soon as we have the right under our Government lease.

Although our present stocks of fused vanadium oxide are sufficient to satisfy demands until 1936, it would seem desirable to economically continue the construction of the Paradox Plant and have it in operation in 1935. By so doing we can start production with a single unit plant and very slowly accumulate stock above our own needs, which will enable us to be on top of the vanadium situation as regards sales to the VCA, without making any immediate provision for a larger capacity plant.

It can be recommended that 15 or 20 men be employed at the Standard mill site continuously, doing the excavating and building the necessary roads, etc. which will have to be done before actual construction of the plant is begun. This working crew could have the power canal cleaned out, install one of the compressors from Rifle, prepare all foundations and put in the water supply, and be all ready for actual plant construction in the Spring of 1935. Under this plan expenditures would amount to from $3,500 to $5,000 per month.

Very truly yours,

EW/J.R.Van Fleet
IC

[fol. 405]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 67-F FOR IDENTIFICATION

General Mining Department. New York City.

Mr. F. P. Gormely, April 5, 1934.
Room 1715, Building.

VANADIUM SITUATION, and
VANADIUM CORPORATION OF AMERICA.

Dear Mr. Gormely:

On January 30, 1934, I sent you a memorandum covering the vanadium situation. The vanadium sales since January 1st have been about as estimated in this memo; ferro-vanadium sales to April 1st have been, approximately, 94,000 pounds contained V, and the sales estimate for this period was 85,010 pounds contained V in ferro.

The Vanadium Corporation of America has taken delivery of 457,223 pounds of V_2O_5, with an additional car to go forward on April 6th, making a total of approximately, 520,000 pounds of V_2O_5 against their option on fused oxide of up to 1,250,000 pounds V_2O_5 content.

The vanadium sales will be carefully watched for an indication of altering the policy for renewed production in the Paradox Valley. Any immediate change in this policy will depend upon whether the Vanadium Corporation of America will purchase fused vanadium oxide from us in 1935.

According to the schedule on Page 3 of my memo of January 30th it may be noted that we will have a stock of a little over 1,000,000 pounds of V_2O_5 at the end of 1935 if the vanadium sales for 1934 and 1935 are up to estimates. It is, therefore, certain that a plant should be in operation in the Paradox Valley before the end of 1935, under any circumstances. If the Vanadium Corporation of America

continues to purchase vanadic acid during 1935, the plant in the Paradox Valley should be producing by the middle of the Summer of 1935.

In many respects it would be desirable to erect a single roaster plant in the Paradox Valley this Summer, and be ready to increase this capacity when consumption warranted. This procedure would enable us to have worked out all of the treatment changes necessary for the Paradox ores, and put us in the position of knowing just what to do under any circumstances, and of being able to do so speedily.

[fol. 406] Negotiations have been carried on with the Vanadium Corporation of America for procuring their Rare Metals plant at Naturita in the Paradox Valley. In some respects it would be very desirable to get the Vanadium Corporation of America out of that field as their ownership of that plant will always be a menace and an invitation for production of ores from independently owned properties. The Vanadium Corporation of America do not own enough ore in the Paradox Valley to enable them to operate their plant successfully, but by encouraging the production of ore from outlying properties a considerable production of vanadic acid could be made.

As yet, the Vanadium Corporation of America has not signified their intention to continue purchasing oxide from us, nor have they placed a valuation on their plant. They have indicated that they do not wish to be "out of the picture" in the Paradox Valley. So far, I have offered two proposals for discussion, and the Vanadium Corporation has offered one. The proposals I have made depend entirely upon whether the Vanadium Corporation will continue to purchase oxide. The amount has been variously discussed at from 3,000,000 to 5,000,000 pounds over a period not to exceed five (5) years. The tentative price offered was ninety cents (90¢) per pound V_2O_5.

Proposal No. 1:

I proposed that the Vanadium Corporation purchase from us from 3,000,000 to 5,000,000 pounds of oxide over

a period of not to exceed five (5) years. The Vanadium Corporation would deliver their Paradox plant to us with the coal mine. We would purchase all ore from the Vanadium Corporation delivered to us at the plant, having a V_2O_5 of 2% or over.

We would pay them for the ore the difference between the cost of manufacturing the acid and the sales' price. For instance, if it cost 45¢ per pound V_2O_5 to process the ore then we would pay them the difference between the sales' price of 90¢ and the cost, or 45¢ per pound V_2O_5 contained in the ore. On a 2% ore with a recovery of 32 pounds V_2O_5 per ton, the amount paid for the ore would be $14.40 per ton. The estimated cost of delivering this ore to the plant is $6.00 per ton. The profit per ton to the Vanadium Corporation on their ore would, therefore, be $8.40 per ton. On higher grade ore the profit would be correspondingly greater.

The Vanadium Corporation has maintained that their properties contain an equivalent of 100,000 tons of 2% ore. At that rate they would net a total of $840,000. for their property, on their investment in the Paradox Valley of approximately $425,000.

This proposal has been discussed in detail and I think they are very much in favor of it, if they were sure they had the ore to deliver. I do not think the Vanadium Corporation really think they have 100,000 tons of ore of a commercial grade, and realize that they would not come out very well with only a small tonnage on this kind of a proposition.

[fol. 407]
Proposal No. 2:

As an alternative I submitted that the Vanadium Corporation would purchase from 3,000,000 to 5,000,000 pounds of oxide as in Proposal No. 1 above, and they would place a valuation on their plant which would be acceptable to us. We would then apply thirty cents (30¢) per pound of

V_2O_5 delivered, against the purchase price of the plant until the purchase price of the property had been satisfied.

They have not, as yet, discussed a valuation for their plant and property but would, probably, want to put it in at the amount of their investment. This would not be acceptable to us as a straight property value, but there may be other advantages in paying a high price for the property if it would result in their retirement from the field.

Proposal No. 3:

The Vanadium Corporation will desire to retain some interest in the Paradox Valley, if possible. They have proposed that we have a joint operation, using their plant. Under this plan they propose to sell us a half interest in the plant, retaining the coal mine.

They realize that we will have more ore to process than they will, and they propose that the Vanadium Corporation will sell coal to the joint operation and after all of their ore has been processed we will continue to process ore from our properties and purchase coal from them at an agreed upon price. The price suggested was $3.00 per ton. They would always retain a half interest in the plant and be able to process ores produced from other properties, which they might purchase.

It is estimated that requirements of coal for power and processing would equal about one (1) ton of coal for each ton of ore processed. With a price of $3.00 per ton on the coal the Vanadium Corporation would be making about $2.00 per ton which we would pay as a royalty for processing our ore in the plant in which we would own a half interest. This proposition, although discussed, of course we cannot seriously consider.

I have stated to the Vanadium Corporation that, in my opinion, the only basis that we can get together on is with the provision that the Vanadium Corporation will continue to purchase oxide from us, and that in case some such

arrangement cannot be made it would more to our advantage to erect our own plant on our own property.

I have stated that the difference in the cost of moving our plant from Rifle and altering the Naturita plant will have no bearing on the cost of producing acid in the Paradox. I called attention to the fact that a plant erected on our own site would be closer to our largest tonnage, and that there would be a corresponding saving in truck haul. The Vanadium Corporation understand that I am going West shortly and will look over the situation with these proposals in mind.

[fol. 408] If we are to erect our own plant in the Paradox Valley and have it in operation by the middle of next year, we should begin construction thereof this late Summer or early Fall. I think it would be wise when I return from the West to definitely state to the Vanadium Corporation that we are going to begin construction of a plant in the Paradox Valley. By that time the Vanadium Corporation will, probably, know whether they will want to continue to purchase oxide or not, and will probably, want to dispose of their Naturita plant.

Very truly yours,

EW/J. R. Van Fleet
IC

[fol. 409]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 80 FOR IDENTIFICATION

January 19, 1943

Mr. G. B. Walker
Electro Metallurgical Co.
30 East 42 Street
New York City

Dear Sir:

Re: Vanadium for Canada

You undoubtedly know that the new allocation system in Canada resulted in our being eliminated from the Canadian market during the month of January. (Our customer, Atlas Steels Ltd., requested 4000 lbs. for shipment from us during January which you dropped from the list and replaced by ferro vanadium from your and Vanadium Corporation's production.)

Atlas Steels Ltd. has now applied for 5000 pounds of vanadium to be received during February and they insist that they want to receive our material.

Our attorney in Ottawa, Mr. Redmond Code, contacted Mr. Bateman today in order to find out whether these 5000 pounds from Continental Ore Company are included in your list for February.

Mr. Bateman was unable to give him this information and suggested to Mr. Code that we get in touch with you regarding this matter since your Welland firm is handling this matter under your direction.

We wish to say that we have these 5000 pounds of V *ready for immediate shipment* and expect you to let us ship this material to Canada as requested by our customer.

We will telephone you tomorrow morning in order to learn your reply.

Thank you for your cooperation.

Very truly yours

CONTINENTAL ORE COMPANY

Henry J. Leir

hjl/sk

[fol. 410]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 81 FOR IDENTIFICATION

January 29, 1943

Mr. M. D. Arrouet
Electro Metallurgical Company
30 East 42nd Street
New York, N.Y.

Re: Vanadium for Canada

Dear Mr. Arrouet:

We wish to thank you for your telephone call of yesterday in regard to the above matter.

You requested us to contact the Electro Metallurgical Company in Welland and submit our offer to them.

You will admit that even if the new set-up in Canada covering the distribution of ferro vanadium has been temporarily sanctioned by the Canadian Metals Controller, such policy still is absolutely contrary to that of Washington.

Your firm and ours are competitors and there can be no question of our eliminating ourselves from the market.

Competitors can and should cooperate in emergency periods such as these, but this should not lead to collusion or coercion in a field which has already attracted the attention of the U. S. Department of Justice because of its monopolistic character.

We believe that our letter of January 19 addressed to Mr. G. B. Walker of your organization was a very fair one. We believe also that our suggestion to the WPB Vanadium Section that we ship the material we had prepared for our customer in Canada, thereafter withdrawing *voluntarily* from the Canadian market, was a very fair one.

Apparently Union Carbide considers itself so influential at the present time that it is trying to eliminate even the infinitesimal participation of an outsider in the vanadium market. However, we feel satisfied that such an attitude will not have the desired effect.

We want to thank you for the personal interest you have taken in this matter, and assure you that we will not forget it.

Very truly yours

CONTINENTAL ORE COMPANY

hjl/ek

Henry J. Leir

[fol. 411]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 82 FOR IDENTIFICATION

ELECTRO METALLURGICAL COMPANY OF CANADA, LIMITED
WELLAND, ONTARIO

February 10, 1943

Continental Ore Company,
500 Fifth Avenue,
New York, N.Y.

Gentlemen:

The Electro Metallurgical Company of your city have recently referred to me correspondence addressed to them from your company regarding vanadium for Atlas Steels Limited.

We note from this correspondence that you prepared 5000 pounds of V for immediate shipment and that you request we arrange for shipment.

Will you kindly quote us a price on this material laid down at Welland together with specification and we will see what arrangement we can make to release this shipment for Atlas Steels.

Very truly yours,

ELECTRO METALLURGICAL COMPANY
OF CANADA, LIMITED,

/s/ C. S. BRAVIN
Vice-President.

C.S. Bravin:JG

[fol. 412]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 83 FOR IDENTIFICATION

February 11, 1943

Electro Metallurgical Company of Canada Ltd.
Welland, Ontario
Canada

Attention: Mr. C. S. Bravin, Vice-President

Gentlemen:

Re: Vanadium for Atlas Steels Ltd.

We received your letter of February 10 and wish to inform you that we have ready for shipment a quantity of 13,444 lbs. V which we intended to ship to Atlas Steels Ltd.

Our price is $2.40 per lb. of metallic V contained, FOB border.

The material is of the same quality as we have been supplying to Atlas in the past and we would suggest that we ship 5,000 lbs. of V this month, 5,000 lbs. of V in March and the remainder of 3,444 lbs. in April.

We would appreciate hearing from you.

Thank you for your kind cooperation.

Very truly yours

CONTINENTAL ORE COMPANY

Henry J. Leir

hji/sk

[fol. 413]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 84 FOR IDENTIFICATION

ELECTRO METALLURGICAL COMPANY OF CANADA, LIMITED
WELLAND, ONTARIO

February 17, 1943

Continental Ore Company,
500 Fifth Avenue,
New York, N.Y.

Attention: Mr. H.J. Leir

Gentlemen:

With reference to recent correspondence regarding Vanadium Oxide for Atlas Steels Limited, Welland, your original letters indicate that you have prepared 5000 pounds of contained V for shipment on this account, and we are prepared to take in this quantity to apply on Atlas Steel's March quota.

We understand your price is $2.40 per pound of contained V, U.S. funds, f.o.b. Welland, Ontario in bond and that the material will conform to the following approximate analysis:

V_2O_5	—	78/82%
Fe_2O_3	—	14%
Al_2O_3	—	1%
TiO_2	—	2%
SiO_2	—	1%

and that the material is packed in containers containing approximately 15 pounds of V.

If you are prepared to accept on order the above quantity at the price and specifications afore mentioned, please

wire us so that we may arrange for release against the March quota.

Very truly yours,

ELECTRO METALLURGICAL COMPANY
OF CANADA, LIMITED,

/s/ C. S. BRAVIN
Vice-President.

C.S. Bravin:JG

[fol. 414]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 85 FOR IDENTIFICATION

Charge to the account of CONTINENTAL ORE COMPANY

[Western Union Form]

STRAIGHT WIRE

FEBRUARY 18, 1943

MR. C. S. BRAVIN
ELECTRO METALLURGICAL COMPANY
OF CANADA, LIMITED
WELLAND, ONTARIO
CANADA

YOURS FEBRUARY SEVENTEENTH RECEIVED. ACCEPT ORDER FIVE THOUSAND POUNDS VANADIUM CONTAINED TO BE APPLIED TO ATLAS STEELS MARCH QUOTA. SHIPMENT CAN BE MADE IMMEDIATELY. THANKS FOR YOUR CO-OPERATION.

CONTINENTAL ORE COMPANY

[fol. 415]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 86 FOR IDENTIFICATION

ELECTRO METALLURGICAL COMPANY
OF CANADA, LIMITED
WELLAND, ONTARIO

February 23, 1943

Continental Ore Company,
500 Fifth Avenue,
New York, N.Y.

Gentlemen:

We have received advice from the Metals Controller's office, Ottawa that they have made application to W.P.B. for the release of 5000 pounds of contained vanadium in Van-ex for shipment to us during March.

You will, no doubt, receive advice from W.P.B. direct if and when this material is released by them. Upon receipt of this advice will you please wire us so that we may issue our regular order to you.

Very truly yours,

ELECTRO METALLURGICAL COMPANY
OF CANADA, LIMITED,

/s/ C. S. BRAVIN
Vice President.

C. S. Bravin:JG

[fol. 416]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 87 FOR IDENTIFICATION

Charge to the account of CONTINENTAL ORE COMPANY

[Western Union Form]

STRAIGHT WIRE

MARCH 1, 1943

MR. C. S. BRAVIN VICE PRESIDENT
ELECTRO METALLURGICAL COMPANY
OF CANADA LIMITED
WELLAND ONTARIO
CANADA

RECEIVED THIS MORNING WPB ALLOCATION 5000 POUNDS VANADIUM. MATERIAL READY FOR IMMEDIATE SHIPMENT.

CONTINENTAL ORE COMPANY

[fol. 417]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 88 FOR IDENTIFICATION

March 3, 1943

Electro Metallurgical Company of Canada, Ltd.
Welland, Ontario
Canada

Gentlemen:

Re: Van-Ex/Your Order #EW 62287

We received your above-named order for 5000 lbs. of V contained in Van-Ex and wish to inform you that shipment

will go forward immediately, freight prepaid to United States Border. The freight beyond the U.S. Border as well as any Canadian duties and taxes are for your account.

Thank you again for your cooperation.

Very truly yours

CONTINENTAL ORE COMPANY

Henry J. Leir

hjl/sk

[fol. 418]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 89 FOR IDENTIFICATION

March 10, 1943

Electro Metallurgical Company of Canada, Ltd.
Welland, Ontario
Canada

Attention: Mr. J. E. Thorpe, Office Manager

Gentlemen:

Re: Vanadium for Atlas Steels
Your Order No. EW-62287

We just received the freight bill for the above shipment (our invoice no. 5646) and learned that inadvertently this shipment was made to Atlas Steels Ltd., Welland, Ontario, Canada instead of to Electro Metallurgical Company of Canada, Welland, Ontario.

The mistake is due to the fact that our shipping department is accustomed to shipping all our vanadium for Canada to Atlas Steels, Welland and therefore failed to observe the change in instructions. A second contributing

factor to the error is that this material has been ready for shipment for more than two months and the boxes had already been stamped with the address of Atlas Steels.

We are extremely sorry that this oversight occurred but trust that this error will not inconvenience you.

Very truly yours

CONTINENTAL ORE COMPANY

Manager

M. Wolf/sk

[fol. 419]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 90 FOR IDENTIFICATION

Charge to the account of CONTINENTAL ORE COMPANY

[Western Union Form]

DAY LETTER

March 19, 1943

MR. C. S. BRAVIN VICE PRESIDENT
ELECTRO METALLURGICAL CO. OF CANADA
WELLAND ONTARIO CANADA

CAN MAKE IMMEDIATE SHIPMENT OF UP TO 5000 POUNDS VANADIUM CONTAINED IN VAN-EX AND WOULD APPRECIATE YOUR GIVING US AN ORDER TO FILL PART OF ATLAS STEELS REQUIREMENTS DURING APRIL. THANK YOU.

CONTINENTAL ORE COMPANY

[fol. 420]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 91 FOR IDENTIFICATION

[Western Union Form]

NBM51 11=WELLAND ONT 20 1022A
CONTINENTAL ORE CORP=
500 FIFTH AVE=

1943 MAR 20 AM 11 16

RETEL NINETEENTH UNABLE TO ACCEPT YOUR OFFER FIVE THOUSAND POUNDS VANADIUM=

ELECTRIC METALLURGICAL CO. BRAVIN.

[fol. 421]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 92 FOR IDENTIFICATION

April 26, 1943

Office of the Metals Controller
Department of Munitions and Supply
Ottawa, Ontario
Canada

Attention: Mr. C. B. Dawson

Gentlemen:

Re: Vanadium

We take pleasure in referring to a letter written to us by the Dominion Foundries and Steel under date of April 24 and of which you received a copy.

We understand that the Electro Metallurgical Sales Co. of Canada acts as your agent regarding the importation of vanadium products into Canada. We further understand, however, that this arrangement is not intended to create a monopoly with regard to the Canadian market and that

Electromet is required to follow the wishes of the Canadian steel mills as far as quality and supplier are concerned.

In other words, it is our understanding that if a steel mill requests, from your office, an allocation for a certain quantity of ferro vanadium and specifies the producer they wish to receive it from, Electromet is to follow these instructions.

As you can see from the copy of our letter to Dominion Foundries and Steel, dated April 21, our ferro vanadium is of a much higher grade than that produced by other manufacturers in this country and has, the same as our vanadium silicide, definite advantages, particularly with regard to its high purity.

These products are being manufactured in the Langeloth, Pa. plant of the Climax Molybdenum Co.

We informed a number of our customers among the Canadian steel mills that in order to obtain our high grade products they should request certain definite quantities of our material in their next allocations and we trust that we will be notified through the Electro Metallurgical Co. to ship these quantities so requested.

We would very much appreciate your confirming that the situation as described above with regard to the Canadian market is correct and that the procedure suggested by us is the one to be followed.

Very truly yours

CONTINENTAL ORE COMPANY

Manager

M. Wolf/sk

[fol. 422]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 93 FOR IDENTIFICATION

[Letterhead of Department of Munitions and Supply, Ottawa, Canada]

April 29, 1943.

Continental Ore Corporation,
500 Fifth Avenue,
New York, N.Y.

re: Vanadium

Dear Sirs,

Through the courtesy of Mr. W. Davies, Dominion Foundries and Steel, we received a carbon of your letter of the 26th addressed that firm and we now acknowledge receipt of yours of the 26th addressed to the Metals Controller.

In Mr. Davies' reply to you of the 24th it is not made evident, possibly it is not known to Mr. Davies, that Electro Metallurgical Company of Canada was requested by the Metals Controller to place its facilities at the disposal of Canada. By the arrangement now in being, Electro-Metallurgical Company is required to finance and to purchase vanadium products allocated to Canada by the War Production Board and to store and distribute this allocation as desired by the Metals Controller. This is done at no cost to Canada.

Having the above in mind, we suggest it is advisable you make your own arrangements with Electro-Metallurgical Company.

Yours truly,

/s/ C. B. DAWSON

C. B. Dawson,
for G. C. Bateman,
Metals Controller.

CBD/MIR.

[fol. 423]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 94 FOR IDENTIFICATION

May 4, 1943

Electro Metallurgical Company of Canada, Ltd.
Welland, Ontario
Canada

Attention: Mr. C. S. Bravin, Vice-President

Re: Vanadium for Canada

Gentlemen:

We refer to our previous correspondence and the order for 5000 lbs. of V contained in Van-Ex which we received from you at the beginning of March. We understand that Atlas Steels has requested various amounts of our material since that time but we have not received a new order from you.

We still have 6800 lbs. of vanadium contained in Van-Ex ready for shipment and would appreciate it if you could see your way clear to giving us an order so that we can ship this material to Canada. You will remember that we originally had about 12000 lbs. of V and this is the balance. We do not contemplate making any additional quantities.

We have prepared this material especially for Atlas Steels and it is certainly a pity to allow it to remain in a warehouse when it can be put to good use.

In any case, it would be better to ship this material to Welland now so that it will be ready for immediate consumption. If the quantity is too much for one month, we suggest that we bill it for June and July but it should certainly not stay here any longer.

May we hear from you?

Very truly yours

CONTINENTAL ORE COMPANY

Manager

M. Wolf/sk

[fol. 424]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 95 FOR IDENTIFICATION

May 17, 1943

Electro Metallurgical Company of Canada, Ltd.
Welland, Ontario
Canada

Attention: Mr. C. S. Bravin, Vice-President

Gentlemen:

Re: High Grade Ferro Vanadium for
Atlas Steels Ltd., Welland, June

We have been informed by Atlas Steels Ltd. that they have requested 2000 lbs. of V contained in our high grade ferro vanadium to be shipped to them in June.

We assume that in this case also the order will be placed by you. We therefore wish to inform you that our material is priced at $2.90 (U.S. currency) per lb. of vanadium contained, FOB United States-Canadian border.

The material contains

V 70 to 80%
C max. .10%

Shipment can be made as soon as order and allocation are received.

May we please have your order.

Thank you for your cooperation.

Very truly yours

CONTINENTAL ORE COMPANY

Manager

M. Wolf/sk

[fol. 425]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 96 FOR IDENTIFICATION

May 20, 1943

Electro Metallurgical Company of Canada, Ltd.
Welland, Ontario
Canada

Attention: Mr. W. Lathrop, Metallurgical Engineer

Gentlemen:

Re: High Grade Ferro Vanadium for
Atlas Steels Ltd., Welland/June

Thank you for your letter of May 19 from which we see that Mr. C. S. Bravin is at present on a trip in Western Canada.

As you know, according to the new regulations, requests for allocations for ferro vanadium are to be filed in Washington on the seventh of the current month instead of, as heretofore, on the twentieth of the preceding month.

We assume that Mr. Bravin will be back by that time. If not, we would very much appreciate your looking into this matter so that the necessary filing will be done in Washington, thus allowing us to make delivery of these 2000 lbs. of V in June.

Thank you for your kind attention.

Very truly yours

CONTINENTAL ORE COMPANY

Manager

M. Wolf/sk
cc Atlas Steels

[fol. 426]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 97 FOR IDENTIFICATION

ELECTRO METALLURGICAL COMPANY OF CANADA, LIMITED
WELLAND, ONTARIO

June 1, 1943.

Continental Ore Company,
500 Fifth Avenue,
New York, N.Y.

Attn: Mr. M. Wolf

Gentlemen:

We hasten to acknowledge your day letter of June 1 in connection with 2,000 lbs. high grade ferrovanadium.

We are holding this matter in abeyance for the next few days within which time our Mr. C.S. Bravin is expected back from his western trip.

Yours very truly,

ELECTRO METALLURGICAL COMPANY
OF CANADA, LIMITED

/s/ WHITING LATHROP
Metallurgical Engineer

W.Lathrop:ML

[fol. 427]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 98 FOR IDENTIFICATION

Charge to the account of CONTINENTAL ORE COMPANY

[Western Union Form]

DAY LETTER

June 1, 1943

Mr. W. Lathrop, Metallurgical Engineer
Electro Metallurgical Company of Canada, Ltd.
Welland, Ontario
Canada

Referring two thousand pounds of vanadium in high grade ferro vanadium for Atlas Steels our letter May twentieth. Have not yet received your order. Are holding this material in readiness for immediate shipment. Please send us your order and file corresponding request in Washington. Please wire status.

Continental Ore Company

[fol. 428]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 99 FOR IDENTIFICATION

June 29, 1943

Electro Metallurgical Company of Canada, Ltd.
Welland, Ontario
Canada

Attention: Mr. C. S. Bravin, Vice-President

Gentlemen:

Re: High Grade Ferro Vanadium
for Atlas Steels Limited

We refer to our letter of May 17, subsequent correspondence, and our telephone conversation with Mr. Bravin on June 11.

Since it was too late to do anything with regard to the 2,000 lbs. of V contained in our high grade ferro vanadium for delivery in June, we would appreciate your ordering this quantity from us for delivery in July, including this amount in your request to be filed with the WPB, Washington.

May we hear from you.

Very truly yours,

CONTINENTAL ORE COMPANY

Manager

M. Wolf/hc

[fol. 429]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 100 FOR IDENTIFICATION

ELECTRO METALLURGICAL COMPANY OF CANADA, LIMITED
WELLAND, ONTARIO

July 5, 1943

Continental Ore Company,
500 Fifth Avenue,
New York, N.Y.

Attention: Mr. M. Wolf

Gentlemen:

I have your letter of June 29th with reference to Ferrovanadium. The situation at the present time is that we have a fairly good inventory of vanadium at Welland and this together with stocks in customer's plants does not justify our opening up any additional sources for this alloy.

We are amply protected for the future and therefore, regret that we are unable to place an order with you at this time.

Very truly yours,

ELECTRO METALLURGICAL COMPANY
OF CANADA, LIMITED,

/s/ C. S. BRAVIN
Vice-President.

C.S. Bravin:JG

[fol. 430]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 101 FOR IDENTIFICATION

July 30, 1943

Electro Metallurgical Company of Canada, Ltd.
Welland, Ontario
Canada

Attention: Mr. C. S. Bravin, Vice-President

Gentlemen:

Re: Van-Ex for Atlas Steels Limited

Atlas Steels Limited have informed us that they have approached you regarding a quantity of 1,800 pounds of V contained in Van-Ex which we are desirous of shipping to them.

This quantity is the balance of the material especially prepared for Atlas Steels Limited and therefore we are forced to ship this material to this customer.

You will agree with us that this is not the time to leave any critical material idle and since Atlas is especially used to our Van-Ex, we asked them to accept it as a last shipment.

In other words, we are perfectly willing not to ship any more material, i.e. Van-Ex or high grade ferro vanadium, to them. You will, of course, realize that in making this proposal, we count on you to accede to Atlas' request, thereby cooperating with us to dispose of this balance.

Very truly yours,

CONTINENTAL ORE COMPANY

Henry J. Leir

hjl/hc

[fol. 431]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 102 FOR IDENTIFICATION

ELECTRO METALLURGICAL COMPANY OF CANADA, LIMITED
WELLAND, ONTARIO

August 2, 1943.

Continental Ore Company,
500 Fifth Avenue,
New York, N.Y.

Gentlemen:

We have your letter of July 30 with reference to a quantity of 1800 pounds of vanadium contained in Van-Ex which you wish to dispose of to the Atlas Steels Limited, Welland.

The stock of contained V on hand at the present time is sufficient to take care of our customer's requirement for some time and it is not expected that we will be importing any additional quantities until present stocks are reduced.

Yours very truly,

ELECTRO METALLURGICAL COMPANY
OF CANADA, LIMITED

/s/ C. S. Bravin
Vice-President

C.S.Bravin:ML

[fol. 432]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 103 FOR IDENTIFICATION

September 23, 1943

Electro Metallurgical Company of Canada, Ltd.
Welland, Ontario
Canada

Attention: Mr. C. S. Bravin, Vice-President

Gentlemen:

Re: 1800 lbs. Vanadium contained in Van-Ex

We refer to our previous correspondence and would very much like to know whether you are now prepared to take over this small quantity.

We would like to dispose of this balance at the earliest possible moment and would be willing to wait until November 30 for payment.

May we hear from you?

Very truly yours

CONTINENTAL ORE COMPANY

Henry J. Leir

hjl/sk

[fol. 433]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 104 FOR IDENTIFICATION

ELECTRO METALLURGICAL COMPANY OF CANADA, LIMITED
WELLAND, ONTARIO

October 4, 1943

The Continental Ore Corporation,
500 Fifth Avenue,
New York, N.Y.

Attention: Mr. H.J. Leir

Gentlemen:

With reference to your letter of September 23rd regarding 1800 pounds of vanadium contained in Vanex which you wish to dispose to the Atlas Steels Limited.

We will be very glad to take up this matter with you when vanadium is required for Canadian requirements in the future. However, as explained to you in my letter of August 2nd, the consumption of vanadium in Canada has decreased to some extent and therefore we do not anticipate making further importations until our inventories are worked down to a reasonable basis. This may be as late as December of this year or January of next year. However, we can assure you that we will not forget this quantity of vanadium which you desire to move when we make the next purchase.

Very truly yours,

ELECTRO METALLURGICAL COMPANY
OF CANADA, LIMITED,

/s/ C. S. BRAVIN
Vice-President.

C.S. Bravin:JG

[fol. 434]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 105 FOR IDENTIFICATION

October 5, 1943

Electro Metallurgical Company of Canada, Limited
Welland, Ontario
Canada

Attention: Mr. C. S. Bravin, Vice-President

Gentlemen:

Re: Van-Ex

Thank you for your letter of October 4.

We understand perfectly the reasons given for keeping this matter in suspense. However, we believe that we have shown our spirit of co-operation regarding the Canadian market and it would be most helpful to us if we could clear out this small lot at an earlier date. (Incidentally, the quantity is only 1600 lbs. of V contained, not 1800 lbs. as mentioned before).

May we suggest that you allow us to ship this material now, with the provision that we invoice it as of December for payment January 31, or, if it would be convenient for your Accounting Department, we could invoice it as of January 1.

This would allow us to liquidate our stock now and avoid the accumulation of further expenses.

Thank you for your kind cooperation.

Very truly yours,

CONTINENTAL ORE COMPANY

Henry J. Leir

hjl/hc

[fol. 435]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 106 FOR IDENTIFICATION

October 27, 1943

Electro Metallurgical Company of Canada, Ltd.
Welland, Ontario
Canada

Attention: Mr. C. S. Bravin, Vice-President

Gentlemen:

Re: Van-Ex

We have not as yet received a reply from you to our letter of October 5, and would very much appreciate your giving this matter your attention at the earliest possible moment.

Very truly yours,

CONTINENTAL ORE COMPANY

Henry J. Leir

hjl/hc

[fol. 436]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 107 FOR IDENTIFICATION

ELECTRO METALLURGICAL COMPANY OF CANADA, LIMITED
WELLAND, ONTARIO

October 30, 1943

Continental Ore Company,
500 Fifth Avenue,
New York, N. Y.

Attention: Mr. H. J. Leir

Gentlemen:

With reference to recent correspondence and your letter of October 27th regarding Vanex, we would advise that vanadium is a very slow moving alloy in Canada at the present time, and as previously advised you our stocks are such that we do not anticipate purchasing further quantities at the present time. We can assure you that you will get due consideration of the quantities you want to dispose of when it becomes necessary to purchase further quantities.

Very truly yours,

ELECTRO METALLURGICAL COMPANY
OF CANADA, LIMITED

/s/ C. S. BRAVIN
Vice-President.

C.S. Bravin:JG

[fol. 437]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 108 FOR IDENTIFICATION

February 2, 1944

Electro Metallurgical Company of Canada, Limited
Welland
Ontario

Attention: Mr. C. S. Bravin, Vice-President

Gentlemen:

Re: Vanadium

We understand that although the allocation system for Ferro Vanadium in this country has been abolished, the set-up as concerns Canada, whereby you are buying vanadium for the entire Canadian Steel Industry, still continues.

We refer in this connection to our previous correspondence. We still have available material which we accumulated for export to Canada, and wonder whether you can release this material now.

May we hear from you?

Very truly yours,

CONTINENTAL ORE COMPANY

Henry J. Leir

hjl/sk

cc: Mr. George B. Walker
Electro Metallurgical Co.
30 East 42nd Street
New York, N. Y.

[fol. 438]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 109 FOR IDENTIFICATION

June 11, 1943

Electro Metallurgical, Welland

Called Mr. Bravin, Electro Metallurgical, Welland, Canada, with respect to the 2000 lbs. of V contained in ferro vanadium for Atlas. He said that it was too late to do anything for June and when I protested that this business should not depend on his being in Welland or not, he said that they had made their plans a long time ago and it would not have fit into the picture for June anyway.

He will see what he can do for July.

Pressed as to what his attitude would be, he took refuge behind Mr. Bateman saying that he depends entirely upon his decisions. I told him that we knew that whatever Electromet proposes will be acceptable to Mr. Bateman and that there is no reason why we should be cut off from a customer which we served for a number of years.

He said that the Canadian Govt. has spent quite a bit of money for this set-up and it seems that Mr. Bateman had made his plans without considering us.

I told him that, in other words, this would mean that Electromet monopolized the Canadian market. He thereupon that he in Canada does not make a single cent out of this set-up and that furthermore they are not alone in it since Vanadium Corp. is shipped to Canada too. Thereupon I told him that this is just what I understand under the term of monopoly.

I saw Arrouet in this connection. He conceded that Bravin is giving us the run around and furthermore agrees that it was not dignified or clever to do it this way. He emphasized that Bravin had been out of town but still this does not justify his methods.

Arrouet was very monopolistic this time too and expressed his astonishment that we were successful in getting so much vanadium anyway. He also mentioned that Climax would better stay out of this business because they could enter the molybdenum field too if they wanted and make trouble for Climax. They already have quite some quantities of molybdenum from their tungsten operation in Calif. which they are partly shipping as MoS_2 and partly roasting for making ferro.

I countered that in other words his picture of the world looked like this—God told Climax to make Molybdenum, he told Electromet to make vanadium, tungsten, ferro manganese etc. and Vanadium Corp. to make ferro vanadium and that nobody would be allowed to transgress the field.

He conceded that the tendency here in this country was approximately like that but that it could not be helped. As to the European market, it appears that Ugine had a contract with Vanadium Corp. for Peruvian vanadium ashes and also some vanadic acid but that Electromet too had a contract with Ugine since Vanadium Corp. could not supply all of Ugine's needs.

Incidentally, Arrouet remarked that we had promised not to go into the Canadian market again and now we had offered ferro vanadium. We said that if Bateman had taken over our 13,000 lbs. of V contained in Van-Ex which was the condition we imposed, we would have refrained from offering ferro vanadium.

mw/sk

[fol. 439]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 121 FOR IDENTIFICATION

CONTINENTAL OIL COMPANY

BALANCE SHEET,
DECEMBER 31, 1942

ASSETS

ASSETS:		
Cash in bank and on hand,.....		$ 22,151.90
Accounts receivable,.....		119,830.44
Loans receivable,.....		1,097.87
Merchandise inventory,.....		198.40
Furniture and fixtures,.....	$ 693.08	
Less reserve for depreciation,.....	15.04	678.04
Prepayments and deposits,.....		688.39
Claim against Standard Marine Insurance Co.,.....	$ 5,733.00	
Less reserve for uncollectibility,..	5,733.00	-
Investment in Western Mining Corp. pfd. stock,.....		2,500.00
TOTAL ASSETS,.....		$147,145.04

LIABILITIES
AND CAPITAL

LIABILITIES:		
Accounts payable,.....	$42,094.20	
Loans payable - Bank,..... $ 4,179.55		
Loans payable - Others,... 11,147.89	15,327.44	
Accrued expenses and taxes,.....	3,490.89	
Total liabilities,.....		$ 60,912.53
RESERVE FOR CONTINGENT ROYALTIES,.....		5,458.50
PARTNERS' CAPITAL, DECEMBER 31, 1942,.....		80,774.01
TOTAL LIABILITIES AND CAPITAL,.....		$147,145.04

439

EXHIBIT A

439

CONTINENTAL OIL CORPORATION

BALANCE SHEET,
DECEMBER 31, 1943

A S S E T S

ASSETS:		
Cash in bank and on hand,.....		$ 4,002.09
Accounts receivable,.....		112,363.15
Loans and other receivables,.....		1,420.92
Merchandise inventory,.....		7,274.03
Furniture and fixtures,.....	$ 704.68	
Less reserve for depreciation,.....	90.15	614.53
Prepayments and deposits,.....		720.19
Claim against Standard Marine Insurance Co.,.....	$ 5,733.00	
Less reserve for uncollectibility,.....	5,733.00	-
TOTAL ASSETS,.....		$126,394.91

L I A B I L I T I E S
A N D C A P I T A L

LIABILITIES:		
Accounts payable,.....	$14,789.54	
Loans payable,.....	8,618.42	
Accrued expenses and taxes,..	4,804.89	
Total liabilities,.....		$ 28,212.85
RESERVE FOR CONTINGENT ROYALTIES,.....		6,502.50
PARTNERS' CAPITAL, DECEMBER 31, 1943,.....		91,679.56
TOTAL LIABILITIES AND CAPITAL,.....		$126,394.91

L140

EXHIBIT A

[fol. 441]

CONTINENTAL OIL COMPANY

STATEMENT OF INCOME AND PROFIT AND LOSS
MAY 5, 1942, TO DECEMBER 31, 1942

SALES,		$361,491.06
COST OF SALES,		313,385.89
GROSS PROFIT ON SALES,		$ 48,105.17
OTHER INCOME:		
Commissions,	$3,134.44	
Miscellaneous,	1,000.00	4,134.44
Total income,		$ 52,239.61
EXPENSES:		
Salaries,	$8,269.59	
Rent and light,	954.37	
Commissions,	5,101.01	
Telephone, telegraph, and cables,	663.00	
General expenses,	1,857.84	
Legal and professional,	1,691.30	
Experimental costs,	175.23	
Traveling,	868.91	
Taxes (including N. Y. State U.B.T.),	1,090.08	
Depreciation,	15.04	
Insurance,	343.75	
Stationery and printing,	352.43	
Warehouse and shipping supplies,	1,423.26	
Postage,	645.89	20,451.70
Total expenses,		$ 31,787.91
OTHER DEDUCTIONS:		
Interest and bank fees,	$ 501.56	
Contributions,	98.00	
Provision for contingent royalties,	5,458.50	6,018.06
NET PROFIT FOR THE PERIOD,		$ 25,769.85

441

EXHIBIT P

441

[fol. 442]

CONTINENTAL OIL COMPANY

STATEMENT OF CAPITAL ACCOUNTS

	TOTAL	HENRY J. LEIB	HENA D. LEIB	LINA SCHLOSS
ORIGINAL CONTRIBUTION 5/5/42,.....	$15,000.00	$ 3,000.00	$ 9,000.00	$ 3,000.00
ADDITIONAL CONTRIBUTION TO 12/31/42,.....	44,435.50	1,476.56	34,967.15	7,991.79
Total,.....	$59,435.50	$ 4,476.56	$43,967.15	$10,991.79
ADD - NET INCOME FOR THE PERIOD MAY 5, 1942, TO DECEMBER 31, 1942,.....	25,769.85	7,905.77	12,710.11	5,153.97
Total,.....	$85,205.35	$12,382.33	$56,677.26	$16,145.76
LESS - WITHDRAWALS DURING THE PERIOD MAY 5, 1942, TO DECEMBER 31, 1942,.....	4,431.34	3,435.49	995.85	
CAPITAL, DECEMBER 31, 1942,	$80,774.01	$ 8,946.84	$55,681.41	$16,145.76

442-A

EXHIBIT C

[fol. 443]

CONTINENTAL OIL COMPANY

STATEMENT OF INCOME AND PROFIT AND [illegible]
JANUARY 1, 1943, TO DECEMBER [illegible], [illegible]

SALES,.....		$ [illegible]
COST OF SALES:		
Inventory, 1/1/43, ...	$ [illegible]	
Purchases,.....	[illegible]	
Freight, Sampling, and analysis,.....	[illegible]	
Total,.....	$[illegible]	
Less inventory, 12/31/43,...	[illegible]	[illegible]
GROSS PROFIT ON SALES,.....		$ [illegible]
OTHER INCOME - COMMISSIONS, ETC.....		[illegible]
TOTAL INCOME,...		$ [illegible]
EXPENSES:		
Salaries,..... .	$ [illegible]	
Rent and light,.....	[illegible]	
Commissions,.....	[illegible]	
Telephone, telegraph, and cables,.....	[illegible]	
General expenses,.....	[illegible]	
Legal and professional,.....	[illegible]	
Traveling and entertaining,..	[illegible]	
Depreciation,.....	[illegible]	
Insurance,.....	[illegible]	
Stationery and printing,.....	[illegible]	
Postage,..	[illegible]	
Taxes (including N.Y. State U. S. T.).....	[illegible]	
Advertising and selling,.. ..	[illegible]	[illegible]
REMAINDER,.....		$ [illegible]
OTHER DEDUCTIONS:		
Interest and bank fees,.....	$ [illegible]	
Contributions,.....	[illegible]	
Provision for contingent royalties,.....	[illegible]	
Bad debts written off, ...	[illegible]	
Loss re worthless security,..	[illegible]	[illegible]
NET PROFIT FOR THE YEAR,.....		$ [illegible]

[illegible] 3

EXHIBIT 3

[fol. 444]

CONTINENTAL OIL COMPANY

STATEMENT OF CAPITAL ACCOUNTS

	TOTAL	HENRY J. LEIB	ERNA D. LEIB	LINA SCULLY
CAPITAL, JANUARY 1, 1943,..	$ 80,774.01	$ 8,946.84	$55,681.41	$16,145.76
ADDITIONAL CONTRIBUTIONS TO DECEMBER 31, 1943,....	15,515.46	5,515.46	-	10,000.00
Total,.....	$ 96,289.47	$14,462.30	$55,681.41	$26,145.76
ADD NET INCOME FOR THE YEAR ENDED DECEMBER 31, 1943,.	43,140.03	17,256.01	17,256.01	8,628.01
Total,.....	$139,429.50	$31,718.31	$72,937.42	$34,773.77
LESS WITHDRAWALS DURING THE YEAR ENDED DECEMBER 31, 1943,.....	42,749.94	10,561.62	29,007.25	3,181.07
CAPITAL, DECEMBER 31, 1943,	$ 96,679.56	$21,156.69	$43,930.17	$31,592.70

444

EXHIBIT C

444

[fol. 445]

EX

[redacted]

[redacted]

[redacted]

ASSETS

Cash in banks and on hand,.....		24,73 .74
Accounts receivable,.....		3,562.23
Merchandise inventory,.....		11,[illegible]2.62
Security deposits,.....		243.33
Furniture and fixtures,.....	365.5	
Less reserve for depreciation,.....	18.25	346.80
Organization expenses,.....		200.00
TOTAL,.....		[illegible]

LIABILITIES AND CAPITAL

LIABILITIES:		
Accounts payable,.....	$1,450.00	
Loans payable,.....	2,136.55	
Accrued expenses,.....	31.12	
Total,.....		$ 3,617.67
CAPITAL:		
Capital stock - Authorized, issued, and outstanding - 400 shares par value 100.00 each,.....	40,000.00	
Deficit - December 31, 1939,.....(	3,326.19)	
Total,.....		36,673.81
TOTAL,.....		[illegible]

[redacted]

CONTINENTAL ORE CORPORATION

STATEMENT OF INCOME AND PROFIT OR LOSS
FOR THE PERIOD JUNE 13, 1939 TO DECEMBER 31, 1939

Sales,.....		$75,225.71
Cost of sales,.....		60,644.65
Gross profit on sales,.....		$ 4,581.06
Miscellaneous income,.....		63.40
Gross Income,.....		$ 4,644.46
EXPENSES:		
Salaries - Officers,.....	$2,250.00	
- Other,.....	707.33	
Rent and light,.....	658.55	
Telephone, telegrams and cablegrams,.....	495.10	
Postage,.....	309.86	
Travel,.....	963.71	
Legal and professional,.....	250.47	
General expenses,.....	532.93	
Experimental costs,.....	1,653.15	
Depreciation,.....	18.25	
Taxes,.....	131.30	
Total Expenses,.....		7,970.65
Loss for the period,.....		($ 3,326.19)

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EXHIBIT B

446

[fol. 447]

CONTINENTAL ONE CORPORATION

BALANCE SHEET,
DECEMBER 31, 1940

A S S E T S

CASH IN BANK AND ON HAND,.....		$28,251.20
ACCOUNTS RECEIVABLE,.....		11,129.00
LOANS RECEIVABLE,.....		1,523.46
MERCHANDISE INVENTORY,.....		3,367.01
SECURITY DEPOSITS,.....		668.33
FURNITURE AND FIXTURES,.....	$ 566.43	
Less reserve for depreciation,..	61.90	504.53
CLAIM AGAINST SOCIETE APONYME DES MINERAIS,.....	$5,733.00	
Less reserve for noncollection,	5,733.00	-
ORGANIZATION EXPENSES,.....		200.00
TOTAL ASSETS,.....		$45,643.53

L I A B I L I T I E S
A N D C A P I T A L

LIABILITIES:		
Accounts payable,.....	$3,539.55	
Loans payable,.....	6,478.37	
Accounts receivable - Credit balances,.....	74.70	
Accrued expenses and taxes,....	93.23	
Total liabilities,.....		$10,155.85
CAPITAL:		
Capital stock - Authorized, issued, and outstanding - 400 shares, par value $100.00 each,.....	$40,000.00	
Deficit - 12/31/40,.....	(4,512.32)	
Total capital,.....		35,487.68
TOTAL LIABILITIES AND CAPITAL,.....		$45,643.53

447

447

EXHIBIT A

[fol. 448]

CONTINENTAL ORE CORPORATION

STATEMENT OF INCOME AND PROFIT AND LOSS
FOR THE YEAR ENDED DECEMBER 31, 1940

SALES,.....		$162,771.62
COST OF SALES,.....		146,617.06
GROSS PROFIT ON SALES,.....		$ 16,154.56
MISCELLANEOUS INCOME - NET,.....		664.87
GROSS INCOME,.....		$ 16,819.43
EXPENSES:		
Salaries:		
Officers,.....	$4,437.50	
Others,.....	2,675.46	
Rent and light,.....	1,431.98	
Telephone, telegrams, and cables,.....	1,565.01	
Postage,.....	614.11	
Travel,.....	2,569.11	
Legal and professional,.....	710.00	
General expenses,.....	2,725.56	
Experimental costs,.....	752.24	
Depreciation,.....	43.65	
Taxes,.....	397.81	
Bad debts,.....	81.13	
Total expenses,.....		18,005.56
NET LOSS FOR THE YEAR,.....		($ 1,186.13)
DEFICIT - 1/1/40,.....		3,326.19
DEFICIT - 12/31/40,.....		($ 4,512.32)

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449

EXHIBIT B

[fol. 449]

Ex 12 FDP

REPORT OF

CONTINENTAL ORE CORPORATION

DECEMBER 31, 1941

(Excerpts)

APPEL ANT BRACH
19 RECTOR STREET
NEW YORK

[fol. 450]

APPEL AND BRACH
PUBLIC ACCOUNTANTS AND TAX CONSULTANTS
15 RECTOR STREET, NEW YORK

January 16, 1942.

Continental Ore Corporation,
500 Fifth Avenue,
New York, N. Y.

Gentlemen:

We have examined the books and records of Continental Ore Corporation for the year ended December 31, 1941, and as a result thereof submit herewith the following:

EXHIBIT

A	-	Balance Sheet - December 31, 1941
B	-	Statement of Income and Profit and Loss for the Year Ended December 31, 1941

SCHEDULE

1	-	Cash on Hand and in Banks - December 31, 1941
2	-	Loans Receivable - December 31, 1941
3	-	Loans Payable - December 31, 1941

Respectfully submitted,

Appel & Brach

450

[fol. 451]

EXHIBIT A

CONTINENTAL ORE CORPORATION

BALANCE SHEET

DECEMBER 31, 1941

ASSETS

Cash on hand and in banks (Schedule 1)		$13,642.22
Accounts receivable		37,912.24
Commissions receivable		321.02
Inventory - as furnished by management		13,061.50
Loans receivable (Schedule 2)		3,388.37
Security deposits		618.33
Furniture and fixtures	$566.43	
Less: Reserve for depreciation	112.69	453.74
Claim against Societe Anonyme des Minervais	$5,733.00	
Less: Reserve for non-collection	5,733.00	-0-
Organization expenses		200.00
Prepaid expenses		236.70
TOTAL ASSETS		$69,834.12

LIABILITIES AND CAPITAL

Liabilities		
Accounts payable	$ 8,777.19	
Accounts receivable - credit balances	3,149.95	
Loans payable (Schedule 3)	18,380.34	
Accrued taxes and expenses	61.53	
Total Liabilities		$30,369.01
Capital		
Capital stock - authorized, issued, and outstanding - 400 shares par value $100.00 each	$40,000.00	
Deficit		
Balance - January 1, 1941	$4,512.32	
Add: Life insurance premium	771.15	
	$5,283.47	
Less: Net profit for the year ended December 31, 1941 (Exhibit B)	4,748.58	
Balance - December 31, 1941	534.89	
Net Capital		39,465.11
TOTAL LIABILITIES AND CAPITAL		$69,834.12

451

[fol. 452]

EXHIBIT B

CONTINENTAL ORE CORPORATION

STATEMENT OF INCOME AND PROFIT AND LOSS

FOR THE YEAR ENDED DECEMBER 31, 1941

Sales		$391,507.29
Cost of Goods Sold		
Inventory - January 1, 1941	$ 1,164.39	
Purchases	383,164.48	
	$384,328.87	
Inventory - December 31, 1941	13,061.50	
Cost of Goods Sold		371,267.37
Gross Profit		$ 20,239.92
Add: Commissions		7,059.54
Gross Income		$ 27,299.46
Expenses		
Salaries - officers	$4,975.00	
office	4,471.55	
Commissions	658.94	
Rent and light	1,970.14	
Telephone	1,356.19	
Cables and telegrams	655.06	
Experimental costs	167.03	
Professional fees	725.85	
Postage	715.63	
Taxes	406.98	
Travelling expenses	1,141.39	
General expenses	4,174.82	
Bad debt	10.60	
Depreciation	50.79	
Interest and discount	935.60	
Insurance	155.31	
Total Expenses		22,550.88
NET PROFIT		$ 4,748.58

[fol. 453]

PX EX 121 FE

CONTINENTAL ORE COMPANY

500 FIFTH AVENUE

NEW YORK, N. Y.

FOR THE YEAR

JANUARY 1, 1944
to
DECEMBER 31, 1944

(21 pp)

DAVID B. JACOBS & COMPANY
CERTIFIED PUBLIC ACCOUNTANTS
19 RECTOR STREET
NEW YORK 6, N. Y.

[fol. 454]

DAVID B. JACOBS & COMPANY
CERTIFIED PUBLIC ACCOUNTANTS
10 RECTOR STREET
NEW YORK 6, N. Y.

DAVID B. JACOBS C. P. A.
B. WALTER KAUFMAN C. P. A.
LEWIS APPEL
EDWIN M. APPEL

TELEPHONE
DIGBY 4-7070

January 22, 1945

Continental Ore Company

500 Fifth Avenue

New York, N. Y.

Dear Sirs:

We have made an examination of your books and records for the year ended December 31, 1944, and hand you herewith our report thereon:

EXHIBIT

"A" - BALANCE SHEET, DECEMBER 31, 1944

Schedule
#1 - Statement of Accounts Receivable
#2 - Statement of Accounts Payable

"B" - STATEMENT OF INCOME AND PROFIT AND LOSS
JANUARY 1, 1944 to DECEMBER 31, 1944

"C" - STATEMENT OF CAPITAL ACCOUNTS

Respectfully submitted,

David B. Jacobs & Co.
Certified Public Accountants.

[fol. 456]

DAVID B. JACOBS & COMPANY

CONFIDENTIAL ONE COMPANY

EXHIBIT "A"

- 0 -

BALANCE SHEET
DECEMBER 31, 1944

ASSETS

CURRENT ASSETS:			
Cash in New York Trust Company.....$		58,465.80	
Cash on Hand.....		108.35	
Accounts Receivable.....		109,579.31	
Accounts Payable - Debit Balances..		3,031.67	
Merchandise Inventory-as Submitted.		2,608.75	
Sundry Receivable.....		100.16	
Commissions Receivable.....		5,776.29	
TOTAL CURRENT ASSETS			179,670.33
FIXED ASSETS:			
Furniture and Fixtures.....		771.60	
Less: Reserve for Depreciation..		168.64	
TOTAL FIXED ASSETS			602.96
OTHER ASSETS:			
Unexpired Insurance.....		343.11	
Stationery Inventory.....		250.00	
Claim - Standard Insurance Co. of Liverpool.....	5,733.00		
Less: Reserve for Uncollectibility.....	5,733.00	-0-	
TOTAL OTHER ASSETS			593.11
TOTAL ASSETS			$ 180,866.40

DAVID B. JACOBS & COMPANY

[redacted]

EXHIBIT "A"

- 8 -

[redacted]
DECEMBER 31, 1964

LIABILITIES AND CAPITAL

[redacted]:

Accounts Payable	$ 18,861.76	
Accounts Receivable-Credit Balances	1,236.58	
Accrued Expenses and Taxes	5,118.94	
New York State Unincorporated Business Tax	1,887.49	
TOTAL CURRENT LIABILITIES		29,004.87

[redacted]:

Loans Payable:		
Louis J. Lipton	3,080.51	
Mrs. Martin Wolf	2,000.00	
Hahn Prop.	5,166.67	
Maurice Shephard	50.65	
Arthur Lieber	2,301.17	
TOTAL OTHER LIABILITIES		13,038.80

[redacted]..... 6,887.50

[redacted], December 31, 1964..... 131,915.23

TOTAL LIABILITIES AND CAPITAL $ 180,846.40

[fol. 458]

DAVID B. JACOBS & COMPANY

[redacted]

EXHIBIT "B"

- 6 -

[redacted]
JANUARY 1, 1944 to DECEMBER 31, 1944

SALES			$ 1,236,010.13
COST OF GOODS SOLD:			
Inventory, January 1, 1944		7,274.03	
Purchases		1,107,922.07	
Freight and Customs		14,047.71	
		1,129,243.81	
Less: Inventory, December 31, 1944		2,588.75	
			1,126,655.06
GROSS PROFIT ON SALES			109,355.07
EXPENSES:			
Advertising and Selling		5,372.44	
Commission Paid		3,788.71	
Experimental Expense		398.94	
General Research		1,581.40	
Royalties		385.00	
Sampling and Analysis		1,098.97	
Traveling and Entertainment		6,985.67	
Warehouse and Shipping Supplies		1,775.95	
Interest and Bank Fees		926.66	
Contributions		350.00	
General Expense		868.74	
Insurance		427.39	
Legal and Professional		3,793.23	
Postage		1,756.15	
Rent and Light		3,343.75	
Salaries		19,983.25	
Stationery and Printing		1,259.37	
Telephone, Telegraph and Cables		4,069.68	
Taxes - Payroll	562.20		
- N. Y. State Unincorporated Business	1,807.39		
- Other	401.78		
		2,771.65	
Depreciation of Furniture and Fixtures		78.67	
TOTAL EXPENSES			61,210.16
OPERATING PROFIT			48,144.93
OTHER INCOME:			
Commissions Earned		17,010.15	
Discount on Purchases		2,799.39	
Miscellaneous Income		11.68	
TOTAL OTHER INCOME			19,821.22
NET PROFIT FOR THE YEAR ENDED DECEMBER 31, 1944			$ 67,966.15

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- 6 -

[fol. 459]

DAVID B. JACOBS & COMPANY

CONTINENTAL OIL COMPANY

EXHIBIT "C"

- 0 -

STATEMENT OF CAPITAL ACCOUNTS

	TOTAL	HENRY LEIB	EMMA D. LEIB	LINA SCHLOSS
BALANCE, January 1, 1944.....$	9 ,879.58	21,156.69	43,930.17	26,592.70
ADD:				
Net Profit for the Year Ended December 31, 1944.....	67,968.15	27,187.26	27,187.26	13,593.63
	159,647.71	48,343.95	71,117.43	40,186.33
DEDUCT:				
Withdrawals during the Year Ended December 31, 1944.....	27,712.48	8,982.83	11,234.77	7,494.88
CAPITAL, DECEMBER 31, 1944	$ 131,935.23	39,361.12	59,992.66	32,691.45

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EX 121 FOR IDENT

CONTINENTAL OIL COMPANY

500 FIFTH AVENUE

NEW YORK, N. Y.

REPORT FOR YEAR

JANUARY 1, 1945

to

DECEMBER 31, 1945

(Unaudited)

DAVID B. JACOBS & COMPANY

CERTIFIED PUBLIC ACCOUNTANTS

19 RECTOR STREET

NEW YORK 6, N. Y.

[fol. 461]

DAVID B. JACOBS & COMPANY
CERTIFIED PUBLIC ACCOUNTANTS
10 RECTOR STREET
NEW YORK 6, N. Y.

DAVID B. JACOBS C.P.A.
S. WALTER KAUFMAN C.P.A.
LEWIS APPEL
EDWIN M. APPEL

TELEPHONE
DIGBY 4-7870

March 13, 1946

Continental Ore Company

500 Fifth Avenue

New York, N. Y.

Dear Sirs:

We have made an examination of your books and records for the year ended December 31, 1945, and hand you herewith our report thereon:

EXHIBIT

"A" - BALANCE SHEET, DECEMBER 31, 1945

Schedule
#1 - Statement of Accounts Receivable
#2 - Statement of Accounts Payable
#3 - Statement of Securities Owned

"B" - STATEMENT OF INCOME AND PROFIT AND LOSS
JANUARY 1, 1945 to DECEMBER 31, 1945

#1 - Statement of Expenses

"C" - STATEMENT OF CAPITAL ACCOUNTS

Respectfully submitted,

David B. Jacobs & Co.

Certified Public Accountants.

BALANCE SHEET
DECEMBER 31, 1945

DAVID B. JACOBS & COMPANY

[redacted]

[redacted] "A"

- 8 -

[redacted]

[redacted]

[redacted]

[redacted]:			
Cash in Banks:			
New York Trust Company.....$		48,988.52	
Manufacturers Trust Company....		999.88	
Cash on Hand.....		137.12	
Accounts Receivable.....		105,[illegible]84.96	
Accounts Payable - Debit Balances.		484.50	
Advances for Future Duty.....		1,539.60	
Investments in Securities - Cost -			
Market Value $14,400.00.....		11,943.72	
Merchandise Inventory as submitted:			
Stock.....	26,672.80		
In Transit.....	11,371.96		
		43,944.76	
Advances to International Ore Co..		1,380.80	
Sundry Receivables.....		187.80	
TOTAL CURRENT ASSETS			215,443.88
[redacted]:			
Furniture and Fixtures.....		1,044.22	
Less: Reserve for Depreciation.		166.76	
TOTAL FIXED ASSETS			877.46
[redacted]:			
Unexpired Insurance.....		647.86	
Claim - Standard Insurance Co. of			
Liverpool.....	5,733.80		
Less: Reserve for Uncollectibility	5,733.80		
		- 0 -	
Deposit - Pan American Airways....		250.00	
TOTAL OTHER ASSETS			897.86
TOTAL ASSETS			$ 217,220.20

DAVID B. JACOBS & COMPANY

CONTINENTAL OIL COMPANY

EXHIBIT "A"

- 0 -

BALANCE SHEET
DECEMBER 31, 1945

LIABILITIES AND CAPITAL

CURRENT LIABILITIES:		
Accounts Payable	$ 13,446.68	
Accounts Receivable - Credit Balances	3,188.58	
Accrued Expenses and Taxes	2,413.13	
Bonuses Accrued - 1945	6,007.25	
New York State Unincorporated Business Tax	2,577.94	
Advances Against Merchandise in Transit - New York Trust Co.	8,734.25	
TOTAL CURRENT LIABILITIES		36,367.83
OTHER LIABILITIES:		
Loans Payable:		
Max Frey	5,425.79	
Maurice Kleeblatt	53.21	
Arthur Lieber	2,945.02	
Armin Doeter	362.46	
George Florsheim	202.14	
TOTAL OTHER LIABILITIES		8,988.82
RESERVE FOR ROYALTIES		6,887.50
PARTNERS' CAPITAL, DECEMBER 31, 1945		165,010.05
TOTAL LIABILITIES AND CAPITAL		$ 217,254.20

[fol. 465]

DAVID B. JACOBS & COMPANY

CONTINENTAL ORE COMPANY

SCHEDULE #3

- 0 -

STATEMENT OF SECURITIES OWNED
DECEMBER 31, 1945

NO. OF SHARES	SECURITY	COST	MARKET VALUE
50	American Car and Foundry 7% Pfd. ..$	5,514.25	6,100.00
100	Consolidated Vultee Aircraft.....	2,305.72	3,300.00
100	Grumman Aircraft Engineering Corp..	4,122.75	5,200.00
	TOTALS	$ 11,942.72	14,600.00

DAVID H. JACOBS & COMPANY

CONTINENTAL ORE COMPANY

EXHIBIT "B"

- 0 -

STATEMENT OF INCOME AND PROFIT AND LOSS
JANUARY 1, 1945 to DECEMBER 31, 1945

SALES			1,167,984.38
COST OF GOODS SOLD:			
Inventory, January 1, 1945		2,608.75	
Purchases		1,034,846.80	
Freight and Customs		50,368.05	
		1,087,823.60	
Less: Inventory, December 31, 1945.		43,944.76	
			1,043,878.84
GROSS PROFIT ON SALES			124,105.54
COMMISSIONS EARNED (Sales $1,068,985.50)			32,177.62
			156,283.16
EXPENSES			78,515.58
OPERATING PROFIT			77,767.58
OTHER INCOME:			
Discount on Purchases		924.05	
Miscellaneous Income		57.10	
Dividends Received		512.50	
Gain on Sales of Securities		2,116.94	
			3,610.59
			81,378.17
OTHER DEDUCTIONS:			
Bank Fees		275.50	
Interest - Net		685.93	
Taxes - Payroll	477.13		
- N. Y. State Unincorporated Business - Paid and Accrued	2,609.23		
- Other	390.79		
		3,477.15	
Depreciation of Furniture & Fixtures		72.32	
Loss on Sale of Fixtures		27.80	
			4,538.70
NET PROFIT FOR THE YEAR			$ 76,839.47

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[fol. 467]

DAVID B. JACOBS & COMPANY

CONTINENTAL ORE COMPANY

SCHEDULE #1

- 0 -

STATEMENT OF EXPENSES
JANUARY 1, 1945 to DECEMBER 11, 1945

Advertising and Selling	$ 7,342.17
Commissions Paid	7,379.30
Experimental Expense	1,200.00
Mineral Research	3,649.43
Sampling and Analysis	4,612.44
Traveling and Entertaining	11,516.88
Warehouse and Shipping Supplies	198.97
General Expenses	1,175.68
Insurance	1,527.13
Legal and Professional	2,672.75
Postage	2,945.23
Rent and Light	3,535.46
Salaries and Bonuses	23,293.50
Stationery and Printing	1,336.10
Telephone, Telegrams and Cables	6,130.54
TOTAL	$ 78,515.58

[fol. 468]

DAVID B. JACOBS & COMPANY

CONTINENTAL OIL COMPANY

EXHIBIT "C"

- 0 -

STATEMENT OF CAPITAL ACCOUNTS

	TOTAL	HENRY J. LEIR	EMMA D. LEIR	LINA SCHLOSS
BALANCE, January 1, 1945.....$	131,935.23	39,361.12	59,882.66	32,691.45
ADD:				
Net Profit for the Year Ended December 31, 1945.....	76,839.47	30,735.79	30,735.79	15,367.89
	208,774.70	70,096.91	90,618.45	48,059.34
DEDUCT:				
Withdrawals during the Year Ended December 31, 1945.....	43,764.65	15,986.06	19,020.19	8,758.40
CAPITAL, DECEMBER 31, 1945 $	165,010.05	54,110.85	71,598.26	39,300.94

[fol. 469]

EX 121

CONTINENTAL ORE COMPANY

500 FIFTH AVENUE

NEW YORK, N. Y.

REPORT FOR YEAR

JANUARY 1, 1946
to
DECEMBER 31, 1946

(acc. pto)

DAVID B. JACOBS & COMPANY
CERTIFIED PUBLIC ACCOUNTANTS
19 RECTOR STREET
NEW YORK 6, N. Y.

[fol. 470]

DAVID B. JACOBS & COMPANY
CERTIFIED PUBLIC ACCOUNTANTS
19 RECTOR STREET
NEW YORK 6, N.Y.

February 12, 1947

Continental Ore Company

500 Fifth Avenue

New York, N. Y.

Dear Sirs:

We have made an examination of your books and records for the year ended December 31, 1946, and hand you herewith our report thereon:

EXHIBIT
"A" - BALANCE SHEET, DECEMBER 31, 1946

Schedule
#1 - Statement of Accounts Receivable
#2 - Statement of Accounts Payable
#3 - Statement of Securities Owned

"B" - STATEMENT OF INCOME AND PROFIT AND LOSS
JANUARY 1, 1946 to DECEMBER 31, 1946

#1 - Statement of Expenses

"C" - STATEMENT OF CAPITAL ACCOUNTS

Respectfully submitted,

Certified Public Accountants.

[fol. 471]

BALANCE SHEET
DECEMBER 31, 1946

[fol. 472]

DAVID B. JACOBS & COMPANY

[redacted]

[redacted]

- 0 -

[redacted]

[redacted]

[redacted]

[redacted]:		
Cash in Bank - New York Trust Company	$ 99,935.14	
Cash on Hand	293.30	
Accounts Receivable	387,053.42	
Accounts Payable - Debit Balances	2,190.70	
Advances - On Merchandise Purchases	66,084.51	
- On Future Duty and Freight	2,197.52	
Investment in Securities - Cost	11,742.22	
(Market Value - $9,712.50)*		
Merchandise Inventory - as submitted	7,779.49	
Sundry Receivables	3,229.65	
Due From Employees	4,000.00	
TOTAL CURRENT ASSETS		584,445.95
[redacted]:		
Furniture and Fixtures	2,521.93	
Less: Reserve for Depreciation	302.12	
TOTAL FIXED ASSETS		2,219.81
[redacted]:		
Unexpired Insurance	547.11	
Deposit - Pan American Airways	250.00	
TOTAL OTHER ASSETS		797.11
TOTAL ASSETS		$ 587,462.87

*Market Value as at 2/10/47

[fol. 473]

DAVID B. JACOBS & COMPANY

CONTINENTAL OIL COMPANY

EXHIBIT "A"

- 0 -

BALANCE SHEET
DECEMBER 31, 1946

LIABILITIES AND CAPITAL

CURRENT LIABILITIES:		
Accounts Payable	$ 202,158.30	
Accounts Receivable - Credit Balances	157,452.05	
Accrued Expenses and Taxes	1,095.16	
Bonuses Payable - 1946	8,250.00	
New York State Unincorporated Business Tax Payable	1,950.01	
TOTAL CURRENT LIABILITIES		370,905.52
OTHER LIABILITIES:		
Leases Payable:		
George Florshein	1,773.96	
Mike Frey	5,642.82	
Maurice Kleeblatt	55.34	
TOTAL OTHER LIABILITIES		7,472.10
RESERVE FOR ROYALTIES		6,887.50
PARTNERS' CAPITAL, December 31, 1946		202,197.75
TOTAL LIABILITIES AND CAPITAL		$ 587,462.87

[fol. 474]

DAVID B. JACOBS & COMPANY

CONFIDENTIAL ORE COMPANY

SCHEDULE #3

- 0 -

STATEMENT OF SECURITIES OWNED
DECEMBER 31, 1946

NO. OF SHARES	SECURITY	COST	MARKET VALUE 2/10/47
50	American Car & Foundry 7% Pfd. .....$	5,514.25	5,625.00
100	Grumman Aircraft Engineering.....	4,122.75	2,575.00
100	General American Investors.....	2,105.22	1,512.50
	TOTALS	$ 11,742.22	9,712.50

[fol. 475]

DAVID B. JACOBS & COMPANY

CONTINENTAL ORE COMPANY

EXHIBIT "B"

- 0 -

STATEMENT OF INCOME AND PROFIT AND LOSS
JANUARY 1, 1946 to DECEMBER 31, 1946

SALES		$ 2,785,270.56
COST OF GOODS SOLD:		
Inventory, January 1, 1946	43,944.76	
Purchases	2,253,460.16	
Freight, Customs and Insurance	267,670.70	
	2,565,075.62	
Less: Inventory, December 31, 1946	7,779.49	
		2,557,296.13
GROSS PROFIT ON SALES		227,974.43
COMMISSIONS EARNED (Sales $230,137.60)		11,914.44
		239,888.87
EXPENSES		150,041.04
OPERATING PROFIT		89,847.83
OTHER INCOME:		
Discount on Purchases	569.08	
Dividends Received	1,148.00	
Gain on Sale of Furniture and Fixtures	24.18	
		1,741.26
		91,589.09
OTHER DEDUCTIONS:		
Bank Fees	2,015.65	
Interest Expense	923.45	
Payroll Taxes	1,041.75	
Other Taxes (Including New York State Unincorporated Business)	3,024.37	
Depreciation - Furniture and Fixtures	150.56	
Loss on Sale of Securities	6,506.23	
		13,662.01
NET PROFIT FOR THE PERIOD		$ 77,927.08

DAVID B. JACOBS & COMPANY

[redacted]

[redacted]

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STATEMENT OF EXPENSES
JANUARY 1, 1946 to [redacted] 31, 1946

Advertising and Selling	$ 9,889.06	
Commissions Paid	28,712.22	
Mineral Research	12,916.57	
Sampling and Analysis	5,969.44	
Traveling and Entertaining	20,980.94	
General Expense	1,399.87	
Insurance	484.00	
Legal and Professional	5,275.31	
Postage	5,314.28	
Rent and Light	5,762.32	
Salaries and Bonuses	43,555.69	
Stationery and Printing	1,551.28	
Telephone, Telegrams and Cables	8,270.06	
TOTAL EXPENSES		$ 150,041.04

[fol. 477]

DAVID B JACOBS & COMPANY

CONFIDENTIAL ORE COMPANY

EXHIBIT "C"

- 0 -

STATEMENT OF CAPITAL ACCOUNTS

	TOTAL	HENRY J. LEIB	EDNA D. LEIB	LEIB SCHLOSS
BALANCE, January 1, 1946.....$	165,010.05	54,110.85	71,598.26	39,300.94
Add:				
Adjustment re: Prior Years' New York State Unincorporated Business Tax.	644.48	257.79	257.79	128.90
ADJUSTED BALANCE, JANUARY 1, 1946	165,654.53	54,368.64	71,856.05	39,429.84
Add:				
Net Profit for the Year Ended December 31, 1946	77,927.08	31,170.83	31,170.83	15,585.42
	243,581.61	85,539.47	103,026.88	55,015.26
Deduct:				
Withdrawals during the Year Ended December 31, 1946.....	41,383.86	7,563.80	24,863.44	8,956.62
CAPITAL, DECEMBER 31, 1946	$ 202,197.75	77,975.67	78,163.44	46,058.64

Ps EX. 121

CONTINENTAL ORE COMPANY

500 FIFTH AVENUE

NEW YORK, N. Y.

REPORT FOR YEAR

JANUARY 1, 1947
to
DECEMBER 31, 1947

(7 pts)

DAVID B. JACOBS & COMPANY
CERTIFIED PUBLIC ACCOUNTANTS
19 RECTOR STREET
NEW YORK 6, N. Y.

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[Vol. 479]

DAVID B. JACOBS & COMPANY
CERTIFIED PUBLIC ACCOUNTANTS
19 RECTOR STREET
NEW YORK 6, N.Y.

DAVID B. JACOBS, C.P.A.
S. WALTER KAUFMAN, C.P.A.
LEWIS APPEL
CERTIFIED APPEL

TELEPHONE
DIGBY 4-7970

February 22, 1948

Continental Ore Company

500 Fifth Avenue

New York, N. Y.

Dear Sirs:

We have made an examination of your books and records for the year ended December 31, 1947, and hand you herewith our report thereon:

EXHIBIT
"A" - BALANCE SHEET, DECEMBER 31, 1947

Schedule
#1 - Statement of Accounts Receivable
#2 - Statement of Accounts Payable
#3 - Statement of Securities Owned

"B" - STATEMENT OF INCOME AND PROFIT AND LOSS
JANUARY 1, 1947 to DECEMBER 31, 1947

#1 - Statement of Expenses

"C" - STATEMENT OF CAPITAL ACCOUNTS

Respectfully submitted,

David B. Jacobs & Co.
Certified Public Accountants.

BALANCE SHEET
DECEMBER 31, 1947

DAVID B. JACOBS & COMPANY

[fol. 481]

CONTINENTAL OIL COMPANY

EXHIBIT "A"

- 0 -

BALANCE SHEET
DECEMBER 31, 1947

ASSETS

CURRENT ASSETS:		
Cash in New York Trust Company:		
Regular Account	$ 35,900.21	
Deposit re: Anticipated Letters of Credit	94,380.00*	
Cash on Hand	166.61	
Accounts Receivable	218,168.88	
Accounts Payable - Debit Balances	1,244.94	
Advances:		
On Merchandise Purchases	199,776.37	
On Future Duty and Freight	18,983.95	
Investment in Securities - Cost (Market Value $8,850.00)**	11,742.22	
Merchandise Inventory	68,217.28	
Sundry Receivables	2,087.34	
Due from Employees	1,000.00	
TOTAL CURRENT ASSETS		612,367.80
FIXED ASSETS:		
Furniture and Fixtures	3,236.51	
Less: Reserve for Depreciation	533.90	
TOTAL FIXED ASSETS		2,702.61
OTHER ASSETS:		
Unexpired Insurance	283.55	
Deposit - Pan American Airways	250.00	
- Others	50.00	
TOTAL OTHER ASSETS		583.55
TOTAL ASSETS		$ 615,653.96

*Deposit against open letters of credit for $461,176.00 with the New York Trust Company.

**Market value as at February 13, 1948.

CONTINENTAL ORE COMPANY

EXHIBIT "A"

- 0 -

BALANCE SHEET
DECEMBER 31, 1947

LIABILITIES AND CAPITAL

CURRENT LIABILITIES:		
Accounts Payable.....$	100,834.25	
Accounts Receivable - Credit Balances.....	17,411.90	
Accrued Expenses and Taxes.....	3,930.92	
Bonuses Payable - 1947.....	20,950.00	
New York State Unincorporated Business Tax Payable.....	4,035.64	
Due to Coal Export Corporation.....	212,200.00	
TOTAL CURRENT LIABILITIES		359,362.71
OTHER LIABILITIES:		
Loans Payable.....		2,135.34
RESERVE FOR ROYALTIES.....		6,887.50
PARTNERS' CAPITAL, DECEMBER 31, 1947....		247,268.41
TOTAL LIABILITIES AND CAPITAL		$ 615,653.96

[fol. 483]

CONTINENTAL ORE COMPANY

SCHEDULE #2 continued

FORWARDED	DR.	CR.
Advances on Merchandise Purchased:		
Bethlehem Steel Export Corp. .....$	144,989.32	
J. C. McDonald.....	12,437.05	
Tennessee Valley Authority.....	1,650.00	
	159,076.37	
Advances on Duty and Freight:		
Bank of Douglas.....	1,320.81	
E. Boehringer.....	388.86	
H. A. Gogarty, Inc.	13,614.57	
G. W. Ochoa.....	3,659.71	
	18,983.95	
TOTALS	$ 179,305.26	100,834.25

CONTINENTAL OIL COMPANY

SCHEDULE #3

- 0 -

STATEMENT OF SECURITIES OWNED
DECEMBER 31, 1947

NO. OF SHARES	SECURITY	COST	MARKET VALUE FEB. 13/48
50	American Car & Foundry 7% Pfd. .....$	5,514.25	4,650.00
100	Grumman Aircraft Engineering.....	4,122.75	3,100.00
100	General American Investors.....	2,105.22	1,100.00
	T O T A L S	$ 11,742.22	8,850.00

[fol. 485]

CONTINENTAL ORE COMPANY

EXHIBIT "B"

- 0 -

STATEMENT OF INCOME AND PROFIT AND LOSS
JANUARY 1, 1947 to DECEMBER 31, 1947

SALES			$ 4,741,603.39
COST OF GOODS SOLD:			
Inventory, January 1, 1947		7,779.49	
Purchases		4,172,979.78	
Freight, Customs and Insurance		297,850.80	
		4,478,610.07	
Less: Inventory, December 31, 1947		68,217.28	
			4,410,392.79
GROSS PROFIT ON SALES			331,210.60
COMMISSIONS EARNED (Sales $91,162.42)			8,343.47
			339,554.07
EXPENSES			221,016.66
OPERATING PROFIT			118,537.43
OTHER INCOME:			
Discount on Purchases		710.09	
Miscellaneous		376.36	
Dividends		800.00	
Gain on Sale of Automobile		1,192.19	
			3,078.64
			121,616.07
OTHER DEDUCTIONS:			
Bank Fees		2,729.71	
Interest Expense		1,389.99	
Taxes:			
Gross Receipts	750.43		
Occupancy	6.00		
New York State Unincorporated Business	4,035.64		
		4,792.07	
Depreciation:			
Furniture and Fixtures	281.78		
Automobile	567.19		
		848.97	
			9,760.74
NET INCOME FOR THE PERIOD			$ 111,855.33

CONTINENTAL ORE COMPANY

SCHEDULE #1

- 0 -

STATEMENT OF EXPENSE
JANUARY 1, 1947 to DECEMBER 31, 1947

Advertising and Selling	$ 19,266.99	
Commissions Paid	49,061.65	
Sampling and Analysis	10,366.27	
General Expense	1,788.19	
Insurance - Auto and General	2,893.04	
Postage	7,389.90	
Legal and Professional	10,428.23	
Rent and Light	7,458.28	
Salaries and Bonuses	72,851.03	
Payroll Taxes	1,421.05	
Traveling and Entertaining	26,588.88	
Stationery and Printing	1,448.49	
Telephone, Telegraph and Cables	11,919.53	
Auto Maintenance and Repairs	523.09	
Warehouse Supplies	112.02	
Mineral Research	300.00	
		223,816.64
Less: Expenses Reimbursed		2,800.00
TOTAL		$ 221,016.64

[fol. 487]

CONTINENTAL ORE COMPANY

EXHIBIT "C"

- 0 -

STATEMENT OF CAPITAL ACCOUNTS

	TOTAL	HENRY J. LEIB	ERNA D. LEIB	LINA SCHLOSS
BALANCE, January 1, 1947.....$	202,197.75	77,975.67	78,163.44	46,058.64
Add:				
Net Income for the Year Ended December 31, 1947	111,855.33	44,742.13	44,742.13	22,371.07
	314,053.08	122,717.80	122,905.57	68,429.71
Deduct:				
Withdrawals during the Year Ended December 31, 1947.....	66,784.67	29,521.74	26,650.92	10,612.01
CAPITAL, DECEMBER 31, 1947 $	247,268.41	93,196.06	96,254.65	57,817.70

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fol. 7488]

P-1 Ex. 121 FOR IDENT.

CONTINENTAL OIL COMPANY

500 FIFTH AVENUE

NEW YORK, N. Y.

REPORT FOR YEAR

JANUARY 1, 1948

to

DECEMBER 31, 1948

(excerpts)

DAVID B. JACOBS & COMPANY

CERTIFIED PUBLIC ACCOUNTANTS

10 RECTOR STREET

NEW YORK 6, N.Y.

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[fol. 489]

DAVID B. JACOBS & COMPANY
CERTIFIED PUBLIC ACCOUNTANTS
19 RECTOR STREET
NEW YORK 6, N.Y.

DAVID B. JACOBS
S. WALTER KAUFMAN
HENRY OPPENHEIM
JOSEPH BLUMENTHAL
MAURICE G. PAYSON
HARRY HONIG

DIGBY 4-7870

LEWIS APPEL
EDWIN M. APPEL

March 3, 1949

Continental Ore Company

500 Fifth Avenue

New York, N. Y.

Dear Sirs:

The audit of your books of accounts and records for the year ended December 31, 1948 has been completed and we hand you herewith our report thereon:

EXHIBIT
"A" - BALANCE SHEET, DECEMBER 31, 1948

Schedule
#1 - Statement of Accounts Receivable
#2 - Statement of Accounts Payable
#3 - Statement of Securities Owned

"B" - STATEMENT OF INCOME AND PROFIT AND LOSS
JANUARY 1, 1948 to DECEMBER 31, 1948

#1 - Statement of Expenses

"C" - STATEMENT OF CAPITAL ACCOUNTS

Respectfully submitted,

David B. Jacobs & Co.
Certified Public Accountants.

CONTINENTAL ORE COMPANY

EXHIBIT "A"

- 0 -

BALANCE SHEET
DECEMBER 31, 1948

ASSETS

CURRENT ASSETS:		
Cash in New York Trust Company.....$	155,429.51	
Cash on Hand.....	927.17	
Accounts Receivable.....	474,972.99	
Merchandise Inventory.....	165,041.48	
Advances:		
On Merchandise Purchases.....	52,282.14	
On Future Duty and Freight.....	4,554.73	
Accounts Payable - Debit Balances....	6,364.13	
Investment in Securities - at Cost...	13,421.25	
(Market Value $10,900.00)*		
Sundry Receivables.....	705.40	
Unexpired Insurance.....	325.00	
TOTAL CURRENT ASSETS		919,013.80
FIXED ASSETS:		
Furniture and Fixtures.....	6,599.35	
Less: Accumulated Depreciation....	868.53	
TOTAL FIXED ASSETS		5,730.82
OTHER ASSETS:		
Deposits and Other Deferred Items....		2,010.33
TOTAL ASSETS		$ 926,754.95

Open Letters of Credit with The New York Trust Company at December 31, 1948 totalled $238,776.75.

*Market Value February 9, 1949.

47: 491

CONTINENTAL ORE COMPANY

EXHIBIT "A"

- 0 -

BALANCE SHEET
DECEMBER 31, 1948

LIABILITIES AND CAPITAL

LIABILITIES:		
Accounts Payable.....$	381,897.68	
Due to Coal Export Corporation.....	200,000.00	
Due to Barities Corporation.....	2,500.00	
Accounts Receivable - Credit Balances	2,052.29	
Sundry Payroll Taxes Accrued.....	351.85	
Accrued Expenses.....	1,490.60	
Bonuses Payable.....	13,726.72	
Employees' Income Tax Withheld.....	3,815.25	
New York State Unincorporated Business Tax Payable.....	5,958.51	
TOTAL LIABILITIES		611,792.90
PARTNERS' CAPITAL, December 31, 1948.....		314,962.05
TOTAL LIABILITIES AND CAPITAL		$ 926,754.95

[fol. 493]

CONTINENTAL ORE COMPANY

SCHEDULE #3

- 0 -

STATEMENT OF SECURITIES OWNED
DECEMBER 31, 1948

NO. OF SHARES		COST	MARKET VALUE, FEB. 9/49
100	American Car and Foundry 7% Pfd. .#	9,298.50	7,700.00
200	Grumman Aircraft and Engineering..	4,122.75	3,200.00
	T O T A L	$ 13,421.25	10,900.00

[fol. 494]

CONTINENTAL ORE COMPANY

EXHIBIT "E"

- 0 -

STATEMENT OF INCOME AND PROFIT AND LOSS
JANUARY 1, 1948 to DECEMBER 31, 1948

SALES.....$		6,476,811.83
COST OF GOODS SOLD:		
Inventory, January 1, 1948.....	68,217.28	
Purchases.....	5,620,971.26	
Freight, Customs and Insurance.....	511,433.94	
	6,200,222.48	
Less: Inventory, December 31, 1948...	165,041.48	
		6,035,181.00
GROSS PROFIT ON SALES		441,630.83
COMMISSIONS EARNED (Sales $181,149.92)....		9,949.45
		451,580.28
EXPENSES, per Schedule #1.....		279,350.42
OPERATING PROFIT		172,229.86
OTHER INCOME:		
Discount on Purchases.....	2,198.57	
Dividends.....	750.00	
Miscellaneous.....	78.42	
		3,026.99
		175,256.85
OTHER DEDUCTIONS:		
Bank Fees.....	6,662.54	
Interest Expense.....	3,112.91	
Depreciation - Furniture and Fixtures	484.63	
Loss on Sales of Securities.....	750.18	
New York City Gross Receipts and Occupancy Taxes.....	283.78	
New York State Unincorporated Business Tax.....	5,958.51	
		17,252.55
NET INCOME FOR THE YEAR		$ 158,004.30

fol 495

CONTINENTAL ORE COMPANY

SCHEDULE #1

- 9 -

STATEMENT OF EXPENSES
JANUARY 2, 1948 to DECEMBER 31, 1948

Advertising and Selling	$ 23,012.92	
Agencies - Maintenance and Expenses	12,549.58	
Commissions Paid	48,044.44	
Sampling and Analysis	8,070.01	
General Expenses	4,247.83	
General Insurance	444.80	
Postage and Parcel Post	10,122.81	
Legal and Professional	9,340.41	
Rent and Light	14,304.23	
Salaries	43,403.39	
Payroll Taxes	1,144.87	
Traveling and Entertaining	28,348.22	
Stationery and Printing	1,824.18	
Telephone, Telegraph and Cables	21,004.98	
Mineral Research	4,370.46	
Chemical Dept. Expenses (Exclusive of Salaries	5,219.64	
		286,250.42
Less: Expenses Recovered		6,900.00
TOTAL EXPENSES		$ 279,350.42

[fol. 496]

CONTINENTAL ORE COMPANY

EXHIBIT "C"

- 0 -

STATEMENT OF CAPITAL ACCOUNTS

	TOTAL	HENRY J. LEIB	ERNA D. LEIB	LINA SCHLOSS
BALANCE, January 1, 1948.....	$ 247,268.41	93,196.06	96,254.65	57,817.70
Add:				
Adjustment re: 1947 New York State Unincorporated Business Tax.....	1,008.91	403.57	403.57	201.77
Adjustment re: Reserve for Royalties.....	6,887.50	2,755.00	2,755.00	1,377.50
ADJUSTED CAPITAL, JANUARY 1, 1948	255,164.82	96,354.63	99,413.22	59,396.97
Add:				
Net Income for the Year, January 1, 1948 to December 31, 1948.....	158,004.30	63,201.72	63,201.72	31,600.86
	413,169.12	159,556.35	162,614.94	9.,997.83
Deduct:				
Withdrawals during the Year Ended December 31, 1948	98,207.07	28,841.36	52,106.40	17,259.31
CAPITAL, DECEMBER 31, 1948	$ 314,962.05	130,714.99	110,508.54	73,738.52

(Vol. 497)

EX. 121 FOR ID.

CONTINENTAL ORE COMPANY

500 FIFTH AVENUE

NEW YORK, N. Y.

REPORT FOR YEAR

JANUARY 1, 1949
to
DECEMBER 31, 1949

(Incorp. to)

DAVID B. JACOBS & COMPANY
CERTIFIED PUBLIC ACCOUNTANTS
11 RECTOR STREET
NEW YORK (5) N. Y.

477

DAVID B. JACOBS & COMPANY
CERTIFIED PUBLIC ACCOUNTANTS
10 RECTOR STREET
NEW YORK 6, N. Y.

February 28, 1950

Continental Ore Company
500 Fifth Avenue
New York, N. Y.

We have made an examination of your books, records and accounts for the year ended December 31, 1949.

We have verified the balances at the bank by direct correspondence with your depository. Cash on hand was counted and found to be in agreement with the ledger balance. Securities owned were not available for our inspection, but were verified by direct communication with the custodian.

Accounts Receivable were reviewed in detail for collectibility, but were not confirmed by direct correspondence with your customers. As at February 8, 1950, 99.4% of these accounts had been collected.

Merchandise Inventory, priced at cost, is carried herein at an amount submitted by the Company. We have satisfied ourselves as to the arithmetical accuracy and correctness of prices used.

Fixed Assets are stated herein at Cost. It is our opinion that the depreciation for the period under review is adequate.

No outside verification was made of liabilities.

In our opinion, the accompanying statements, subject to the aforementioned comments, present fairly the position of the Company at December 31, 1949 and the results of its operations for the year ended on that date.

David B. Jacobs & Co

Certified Public Accountants.

[fol. 499]

CONTINENTAL ORE COMPANY

C O N T E N T S

E X H I B I T

"A" - BALANCE SHEET, DECEMBER 31, 1949

Schedule

#1 - Statement of Accounts Receivable

#2 - Statement of Accounts Payable

#3 - Statement of Securities Owned

"B" - STATEMENT OF INCOME AND PROFIT AND LOSS JANUARY 1, 1949 to DECEMBER 31, 1949

#1 - Statement of Expenses

"C" - STATEMENT OF CAPITAL ACCOUNTS

- - - - - 0 - - - - -

[fol. 500]

BALANCE SHEET
DECEMBER 31, 1949

[fol. 501]

CONTINENTAL OIL COMPANY

EXHIBIT "A"

- 0 -

BALANCE SHEET
DECEMBER 31, 1949

ASSETS

CURRENT ASSETS:		
Cash in New York Trust Company.....$	262,724.38	
Cash on Hand.....	848.70	
Accounts Receivable.....	94,154.26	
Merchandise Inventory - as submitted..	124,534.00	
Advances:		
On Merchandise Purchases.....	7,589.91	
On Future Duty and Freight.....	24,382.62	
Accounts Payable - Debit Balances.....	3,121.24	
Investment in Securities - at Cost....	13,769.31*	
Sundry Receivables.....	6,151.39	
Unexpired Insurance.....	475.00	
Advance Re: 1950 Federal Income Taxes.	21,202.49	
TOTAL CURRENT ASSETS		558,953.30
FIXED ASSETS:		
Furniture and Fixtures.....	7,007.82	
Less: Accumulated Depreciation.....	1,540.03	
TOTAL FIXED ASSETS		5,467.79
OTHER ASSETS:		
Deposits and Other Deferred Items.....		1,756.50
TOTAL ASSETS		$ 566,177.59

*Market Value, February 8, 1950 - $12,337.50.

Open Letters of Credit with the New York Trust Company at December 31, 1949 totalled $28,994.01.

CONTINENTAL OIL COMPANY

EXHIBIT "A"

- 0 -

BALANCE SHEET
DECEMBER 31, 1949

LIABILITIES AND CAPITAL

LIABILITIES:		
Accounts Payable	$ 244,005.10	
Accounts Receivable - Credit Balances	694.94	
Sundry Payroll Taxes Accrued	424.56	
Accrued Expenses	4,086.12	
Bonuses Payable	3,076.53	
Employees' Income Tax Withheld	3,716.10	
New York State Unincorporated Business Tax Payable	4,394.66	
TOTAL LIABILITIES		260,397.99
PARTNERS' CAPITAL, DECEMBER 31, 1949		305,779.60
TOTAL LIABILITIES AND CAPITAL		$ 566,177.59

[fol. 503]

CONTINENTAL ORE COMPANY

EXHIBIT "B"

- 0 -

STATEMENT OF INCOME AND PROFIT AND LOSS
JANUARY 1, 1949 to DECEMBER 31, 1949

SALES (Includes Inter-Company Sales).....$		9,802,169.27
COST OF GOODS SOLD:		
Inventory, January 1, 1949.....	165,041.48	
Purchases.....	8,632,914.09	
Freight, Customs and Insurance.....	693,795.72	
	9,491,751.29	
Less: Inventory, December 31, 1949....	124,534.00	
		9,367,217.29
GROSS PROFIT ON SALES		434,951.98
COMMISSIONS EARNED (Sales $553,885.00).....		36,980.48
		471,932.46
EXPENSES, per Schedule #1.....		299,072.28
OPERATING PROFIT		172,860.18
OTHER INCOME:		
Dividends.....	1,100.00	
Miscellaneous.....	1,633.73	
		2,733.73
		175,593.91
OTHER DEDUCTIONS:		
Bank Fees.....	6,981.21	
Interest Expense.....	5,445.09	
Depreciation - Automobile.....	448.82	
Depreciation - Furniture and Fixtures.	674.90	
Miscellaneous Taxes.....	31.95	
Loss on Sale of Automobile.....	291.71	
Loss on Sale of Securities.....	221.28	
Loss on Sale of Furniture and Fixtures	10.38	
New York State Unincorporated Business Tax.....	4,394.66	
		18,500.00
NET INCOME FOR THE PERIOD		$ 157,093.91

CONTINENTAL ORE COMPANY

SCHEDULE #1

- 0 -

STATEMENT OF EXPENSES
JANUARY 1, 1949 to DECEMBER 31, 1949

Advertising and Selling	$ 12,073.28	
Agencies - Maintenance and Expenses	27,012.21	
Commissions Paid	55,115.09	
Sampling and Analysis	7,878.21	
eneral Expenses	5,175.57	
General Insurance	537.31	
Postage and Parcel Post	11,103.47	
Legal and Professional	35,919.99	
Rent and Light	14,117.92	
Salaries	93,915.04	
Payroll Taxes	1,387.14	
Traveling and Entertaining	34,606.78	
Stationery and Printing	1,590.25	
Telephone, Telegraph and Cables	24,169.03	
Auto Maintenance and Expenses	1,020.99	
		325,622.28
Less: Expenses Recovered		26,550.00
TOTAL EXPENSES		$ 299,072.28

[fol. 505]

CONTINENTAL OIL COMPANY

EXHIBIT "C"

- 0 -

STATEMENT OF CAPITAL ACCOUNTS

	TOTAL	HENRY J. LEIB	EDNA D. LEIB	LINA SCHLOSS
BALANCE, JANUARY 1, 1949.....	$ 314,962.05	130,714.99	110,508.54	73,738.52
Add:				
Adjustment re: 1948 New York State Unincorporated Business Tax.....	1,489.62	595.85	595.85	297.92
ADJUSTED CAPITAL	316,451.67	131,310.84	111,104.39	74,036.44
Add:				
Net Income for the Year January 1, 1949 to December 31, 1949.....	157,093.91	62,837.57	62,837.56	31,418.78
	473,545.58	194,148.41	173,941.95	105,455.22
Deduct:				
Withdrawals for the Year Ended December 31, 1949...	167,765.98	76,140.51	68,393.76	23,231.71
CAPITAL, DECEMBER 31, 1949	$ 305,779.60	118,007.90	105,548.19	82,223.51

[fol. 506]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 123 FOR IDENTIFICATION

CONTINENTAL ORE CORPORATION AND CONTINENTAL ORE COMPANY

TABULATION REFLECTING INCREASE IN NET WORTH

	Sales	Sales Value of Commission Income	Overhead Expenses	Net Income	Net Worth December 31st
June 13, 1939 to December 31, 1939, ...	$ 75,225		$ 7,970	($ 3,326)	$ 36,674
1940, ...	162,771	$ 40,000	18,005	(1,186)	35,487
1941, ...	391,507	233,000	22,550	4,748	39,465
1942, ...	864,541	301,000	55,765	33,160	80,774
1943, ...	916,753	296,000	41,802	43,140	91,679
1944, ...	1,236,000	340,000	61,210	67,968	131,935
1945, ...	1,167,984	1,069,000	78,515	76,839	165,010
1946, ...	2,785,270	230,000	150,041	77,927	202,198
1947, ...	4,741,603	91,000	221,016	111,855	247,268
1948, ...	6,746,811	181,000	279,350	158,004	314,962
1949, ...	9,802,169	553,000	299,072	157,000	305,779

In United States District Court

Plaintiffs' Exhibit No. 124 for Identification

CONTINENTAL ORE GROUP - U. S. COMPANIES

1950 - 1957

STATEMENT OF NET WORTH

	1950	1951	1952	1953	1954	1955	1956	1957
CALENDAR YEAR								
Continental Ore Corporation,.....	$ 629,865	$ 789,329	$1,050,568	$1,182,126	$1,501,937	$1,750,000	$2,357,224	$3,201,109
(1)Austro-American Aluminum Corp.,.....	64,164	80,682	98,915	112,495	123,086	141,069	157,189	174,495(1)
Borites Corporation,.....	58,483	75,509	91,914	97,792	100,219	115,895	134,525	152,354
Coal Export Corporation,.....		24,620	35,381	38,050	40,787	47,110	69,186	85,657
Total,.....	$1,068,533	$1,287,355	$1,276,778	$1,430,463	$1,766,029	$2,054,094	$2,718,124	$3,613,615
FISCAL YEAR								
Continental Ore Company,.....			365,078	252,740	214,178	254,166	253,159	312,625
International Ore & Fertilizer Corp. and subsidiaries,.....	34,007	58,390	78,973	95,097	151,531	234,304	409,725	867,000
Continental Lead & Zinc Corp.,.....	37,090	56,082	85,456	90,385	107,010	120,669	136,983	162,000
Overseas investors,.....							106,000	226,000
Cement Import Corp.,.....						6,793	8,242	26,000
Continental Aluminum Corp.,.....							18,000	43,000
Brazilian Iron Ore Importing Corp.,.....							4,500	40,000
International Asphalt Corp.,.....							4,000	23,000
International Agricultural Corp.,.....							2,800	26,000
TOTAL,.....	$1,139,630	$1,401,827	$1,806,285	$1,868,685	$2,238,748	$2,670,026	$3,661,533	$5,339,240

(1) Name changed to Austro American Commercial Corp. in 1957.

NOTE: Fiscal year companies estimated at 12/31/57 - Unaudited.

EX 24 FOR IDENT.

CONTINENTAL ORE GROUP - U. S. COMPANIES

1939 - 1949

STATEMENT OF NET WORTH - DECEMBER 31st

	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949
Continental Ore Corp.*,.....	$36,674	$35,487	$39,465								
Continental Ore Company,.....				$80,774	$91,679	$131,935	$165,010	$202,198	$247,268	$314,962	$305,779
Austro American Aluminum Corp.,.....										20,747	46,425
Borites Corp.,.....										21,698	39,769
Coal Export Corp.,.....									56,973	110,659	129,410
Continental Fertilizer Corp.,.....										48 903	138,140
Magnolithe Corporation,.....										19,609	95,394
TOTAL,.....	$36,674	$35,487	$39,465	$80,774	$91,679	$131,935	$165,010	$202,198	$304,241	$536,578	$754,917

*Dissolved 12/18/42.

[fol. 509]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 125 FOR IDENTIFICATION

pltf's EX. No. 125 FOR IDENT.

Plaintiff's Exhibit No. 125 for Identification

pltf's EX. 125 FOR IDENT.

CONTINENTAL ORE CORPORATION AND CONTINENTAL ORE COMPANY

FLUORSPAR SALES

YEAR	TOTAL, NET TONS	TOTAL, AMOUNT	PRIVATE INDUSTRY, NET TONS	PRIVATE INDUSTRY, AMOUNT	GOVERNMENT, NET TONS	GOVERNMENT, AMOUNT
June 13, 1939 to December 31, 1957,....	370.29	$ 8,326.48	370.29	$ 8,326.48		
1940,.....	2,167.29	43,134.53	2,167.29	43,134.53		
1941,.....	6,935.74	127,766.10	6,879.66	126,212.68	56.08	$ 1,553.42
1942,.....	12,042.75	252,093.13	11,826.69	246,924.89	216.06	5,168.24
1943,.....	18,312.90	511,865.13	15,895.40	431,609.66	2,417.50	80,255.47
1944,.....	30,136.46	833,884.09	26,902.95	715,183.14	3,233.51	118,700.95
1945,.....	29,217.48	778,970.47	29,000.33	770,894.27	217.15	8,076.20
1946,.....	32,773.10	891,344.10	32,773.10	891,344.10	-	-
1947,.....	49,216.90	1,258,080.82	49,216.90	1,258,080.82	-	-
1948,.....	72,448.70	1,963,267.49	72,448.70	1,963,267.49	-	-
1949,.....	48,838.86	1,385,324.88	48,838.86	1,385,324.88	-	-
1950,.....	84,177.20	2,411,517.90	84,177.20	2,411,517.90	-	-
1951,.....	86,419.35	3,269,681.71	80,468.11	2,942,518.98	5,951.24	327,162.73
1952,.....	141,166.21	5,433,558.73	116,716.17	4,618,300.35	24,450.04	1,415,258.38
1953,.....	117,248.56	4,807,267.31	71,634.47	2,329,618.56	45,614.09	2,477,648.75
1954,.....	54,483.24	2,031,198.25	37,414.99	1,118,339.35	17,068.25	912,858.90
1955,.....	79,535.91	2,649,261.65	74,247.48	2,435,979.67	5,288.43	213,281.98
1956,.....	150,240.35	4,613,312.25	87,325.31	2,808,803.53	62,915.04	1,804,508.72
1957,.....	160,681.11	6,527,633.76	99,469.83	3,857,797.69	61,211.28	2,669,836.07
TOTAL,.....	1,176,412.40	$39,797,488.78	947,773.73	$29,763,178.97	228,638.67	$10,034,309.81

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[fol. 510]

CONTINENTAL ORE CORPORATION
AND CONTINENTAL ORE COMPANY

SUMMARY OF FLUORSPAR SALES
JUNE 13, 1939, TO DECEMBER 31, 1957

	NET TONS	AMOUNT
Private industry,...	947,773.73	$29,763,178.97
Government,.....	228,638.67	10,034,309.81
Total,.....	1,176,412.40	$39,797,488.78

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[fol. 511]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 126 FOR IDENTIFICATION

~~EX 126~~ FOR IDENT.

~~EX 126~~ FOR IDENT.

~~COURT~~

~~Plaintiff's Exhibit No. 126 for identification~~

CONTINENTAL ORE COMPANY

COMPUTATION BASED ON CONTINENTAL
HAVING SOLD COMPARABLE TO FLUORSPAR SALES

YEAR	(1) FERROVANADIUM LBS. SOLD BY DEFENDANTS	(2) % OF INDUSTRY	(3) TOTAL LBS. BASED ON % OF INDUSTRY	(4) LESS LBS. ACTUALLY SOLD	(5) DIFFERENCE BETWEEN LBS. SOLD AND % OF INDUSTRY	(6) COL. 5 AT $2.70 PER LB.	(7) GROSS PROFIT AT 12%
1/2 year 1939,....	582,575	.14	815.60		815.60	$ 2,202.12	$ 264.25
1940,.....	1,894,742	.93	17,621.10	15,648.50	1,972.60	5,326.02	639.12
1941,.....	4,046,695	2.16	87,408.61	70,845.76	16,562.85	44,719.70	5,366.36
1942,.....	3,884,361	3.34	129,737.66	99,393.87	30,343.79	81,928.23	9,831.38
1943,.....	3,843,589	4.51	173,345.86	17,052.76	156,293.10	421,991.37	50,638.96
1944,.....	3,112,605	7.28	226,597.64	7,120.52	219,477.12	592,588.22	71,110.59
1945,.....	2,042,911	9.02	184,270.57	8,127.00	176,143.57	475,587.64	57,070.51
1946,.....	1,265,545	11.79	149,207.76	100.00	149,107.76	402,590.95	48,310.91
1947,.....	1,295,397	14.94	193,532.31		193,532.31	522,537.24	62,704.47
1948,.....	2,491,294	21.84	544,098.61		544,098.61	1,469,066.25	176,287.95
1/2 year 1949,....	1,245,697	20.63	256,987.29		256,987.29	693,865.68	83,263.88
TOTAL,.....	25,705,411		1,963,623.01	218,288.41	1,745,334.60	$3,712,403.42	$565,488.38

IN UNITED STATES DISTRICT COURT
PLAINTIFFS' EXHIBIT NO. 133 FOR IDENTIFICATION

EX
JUN 13 1958

CONTINENTAL ORE COMPANY

ILLUSTRATION OF GROSS PROFIT ON SALE OF VQN EX

INVOICE S 259 - ATLAS STEELS LIMITED - 3/28/42

Sale of 6,615 lbs. Vanadium container in Vqn Ex,
$2.40 per pound of Vanadium container
F.O.B. American border,..... $15,876.00

COMPUTATION OF GROSS PROFIT

	Actual	At 80¢ per lb. V 205
Sales Price,.....	$15,876.00	$15,876.00
Cost of Sales:		
Purchase of $11,774.70 V 205,.....	$12,997.01	$ 9,419.76
Freight from mine,.....	546.00	546.00
Drums,.....	154.00	154.00
Processing costs, freight out and overhead,.....	328.85	323.85
Total cost,.....	$14,025.86	$10,443.61
Gross Profit,.....	$ 1,850.14	$ 5,427.39
% of Gross Profit to Sales,.....	11.6	34.2

Rec'd 3-9 FOR IDENT.

Continental Can Co.
Memorandum - Calculation of Profits
Lost on assumption that Continental would have
Had the same Percentage of the Market 1941 - 1949

Share of market in 1941:

Pounds sold by Continental / Pounds sold by Defendants = 75606 / 4046,695 = 1.86833 %

Profits lost 1942 - 1949:

	Pounds sold by Defendants	Pounds Lost at 1.86833%	Sales Lost at 2.7¢	Profits Lost at 12% of Sales	Annual Price Change Factor	Profits Lost in 1957 dollars
		Continental				
1942	388,4361	72573	1959710	235165	1.72453	405499
1943	384,3589	71811	1938870	232676	1.62432	377926
1944	311,2605	58154	1570158	188419	1.59840	301168
1945	204,2911	38168	1030536	123643	1.56307	193296
1946	126,5485	23645	638450	76609	1.44125	110439
1947	129,5397	24202	653454	78415	1.25864	98695
1948	249,1294	46546	1256742	150809	1.16926	176334
½ year - 1949	124,5697	23274	628398	75407	1.18075	89037
				1461283		1752373

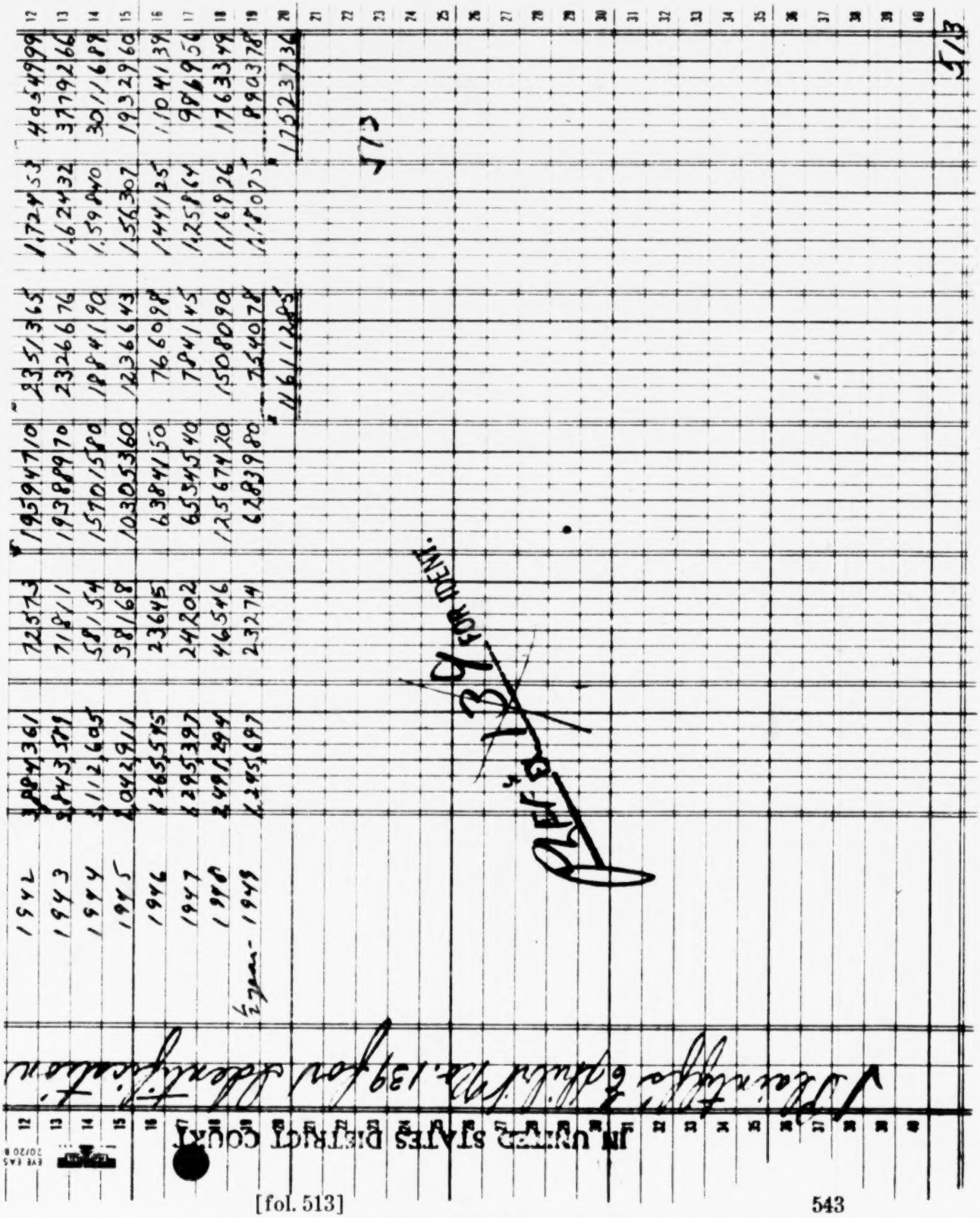
Mr. Hoffman identification

B-9 FOR IDENT.

[fol. 513]

IN UNITED ST
PLAINTIFFS' EXHIBIT

U.S. DISTRICT COURT



[fol. 513]

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IN UNITED STATES DISTRICT COURT
PLAINTIFFS' EXHIBIT NO. 139 FOR IDENTIFICATION

FOR IDENT.

Continental Oil Group
Computation of Loss of Profit from Possible
Sale of Accumulation Based Upon
Various Possible Uses of the Market, cont'd.

[fol.

IN UNITED STATES DISTRICT COURT
Plaintiff's Exhibit No. 147 for Identification

	1939 (½ year)	1940	1941	1942	1943	1944	1945
Sales cost at 2.70 per pound (pounds per page ÷ at 2.70):							
1% basis	-	-	-	-	469340	622530	268290
2 % "	-	208710	1438560	-	1507080	1462450	819880
3 % "	-	5324400	12364650	4626990	25448580	23028570	13714650
4 % "	-	10440360	23290740	15114600	35826300	31432590	19230480
5 % "	587250	15556050	34216830	25602480	46203750	39836610	24746580
6 % "	2160270	20672010	45142920	36090360	56581470	48240630	30262410
7 % "	3733020	25787700	56069010	46577970	66959190	56644650	35778240
8 % "	5306040	30903390	66995100	57065150	77336910	65048670	41294070
9 % "	6879060	36019350	77921190	67553460	87714630	73452690	46809900
10 % "	8452080	41135040	88847280	78041340	98092350	81856980	52325730
11 % "	10024830	46251000	99773100	88529220	108470070	90261000	57841560
12 % "	11597850	51366690	110699190	99016830	118847790	98665020	63357390
13 % "	13170870	56482380	121625280	109504710	129225510	107069040	68873220
14 % "	14743890	61598340	132551370	119992590	139602960	115473060	74389320
15 % "	16316640	66714030	143477460	130480200	149980680	123877080	79905150
Profits cost at 12% of sales (above figures x 12%):							
1% basis	-	-	-	-	56317	74646	32195
2 % "	-	25045	172627	-	180850	175494	98385
3 % "	-	638928	1483758	555239	3053830	2763428	1645758
4 % "	-	1252843	2794889	1813752	4299156	3771911	2307658
5 % "	70470	1866726	4106020	3072298	5644450	4790393	2969590
6 % "	259232	2480641	5417150	4330843	6789776	5788876	3631489
7 % "	447962	3094529	6728281	5589356	8035103	6797358	4293389
8 % "	636725	3708407	8039412	6847902	9280429	7805840	4955288
9 % "	825489	4322322	9350543	8106415	10525756	8814323	5617188
10 % "	1014250	4936205	10661674	9364961	11771082	9822838	6279088
11 % "	1202980	5550120	11972772	10623506	13016408	10831320	6940987
12 % "	1391743	6164034	13283903	11882051	14261735	11839803	7602887

[fol. 515]

IN UNITED STATES DISTRICT COURT
PLAINTIFFS' EXHIBIT NO. 141 FOR IDENTIFICATION

39	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	Total
–	–	–	–	469310	622053	268299	338915	349758	67265	336339	3067399
–	20871	143856	–	1507086	1462455	819882	680697	699516	1345302	672678	7352343
–	532440	1236466	462699	2544858	2302857	1371465	1022382	1049274	2017953	1009017	13549410
–	1044036	2329074	1511460	3582630	3143259	1923048	1364094	1399032	2690604	1345356	20332593
87250	1555606	3421683	2560248	4620375	3983661	2474658	1705779	1748790	3363255	1681695	27174474
60270	2067201	4514252	3609036	5658147	4824063	3026241	2047491	2098548	4035906	2018034	34114986
33020	2588770	5606901	4657797	6695919	5664465	3577244	2382176	2449306	4708557	2354373	41055390
06040	3090339	6699510	5706515	7736910	6504867	4129407	2730888	2796064	5381208	2690712	47995875
79060	3601935	7792119	6755346	8771463	7345269	4680990	3072573	3147822	6053832	3027051	54936306
52080	4113504	8884728	7804139	9809235	8185698	5232573	3419285	3497580	6726483	3363390	61876818
24830	4625100	9977310	8852922	10847007	9026100	5784156	3755970	3847338	7399134	3699729	68817249
97850	5136669	11069919	9901683	11884779	9866502	6335739	4097655	4197096	8071285	4036068	75757680
70870	5648238	12162528	10950471	12922551	10706904	6887322	4439367	4546854	8744436	4372407	82698165
43890	6159834	13255137	11999259	13960296	11547306	7438932	4781052	4896612	9417087	4708746	89638650
16640	6671403	14347746	13048020	14998068	12387708	7990515	5122764	5246370	10089738	5045085	96579081

–	–	–	–	56317	74646	32195	40678	41971	80718	40360	366888
–	2504	17262	–	180850	175494	98385	81683	83941	161436	80721	882281
–	6389	14837	5552	305383	276342	164575	122685	125912	242154	121082	1625929
–	1252	2794	1813	429915	377191	230765	163691	167883	322972	161442	2439911
70470	1866	4106	3072	564445	479039	296959	204693	209854	403590	201803	3260937
59232	2480	5417	4330	678977	578887	363149	245698	251825	484308	242164	4093798
47962	3094	6728	5589	803510	679735	429338	286701	293796	565026	282524	4926646
36725	3708	8039	6847	928042	780584	495528	327706	335767	645795	322859	5759505
25487	4322	9350	8106	1052575	881432	561718	368708	377738	726459	363246	6592356
14250	4936	10661	9364	1177108	982283	627908	409714	419709	807178	403606	7425218
02980	5550	11972	10623	1301640	1083132	694098	450716	461680	887896	443967	8258069

IN UNITED STATES DISTRICT COURT
Plaintiffs' Exhibit No. 1417 for Identification

Profits lost at 12% of sales (above figures × 12%):

	1% basis											
2%	–	25045	172627	–	563177	746464	321959	406782	419710	807181	403607	3668880
3%	–	638928	1483758	555239	1808503	1754946	983858	816836	839419	1614362	807214	8822810
4%	–	1252843	2794889	1813752	3053830	2763428	1645758	1226858	1259129	2421544	1210820	16259292
5%	70470	1866726	4106020	3072298	5644450	4790393	2969590	2046935	2098548	4035906	2018039	32609370
6%	259232	2480641	5417160	4330843	6789776	5788876	3631499	2456989	2518258	4843087	2421641	40937882
7%	447962	3094529	6728281	5589356	8035103	6797358	4293389	2867011	2937967	5650268	2825248	49266467
8%	636725	3708407	8039412	6847902	9280429	7805840	4955288	3277066	3357672	6457950	3228858	57596050
9%	825489	4322322	9350593	8106415	10525756	8814323	5617188	3687088	3777396	7265598	3632461	65923567
10%	1014250	4936205	10661674	9364961	11771082	9822838	6279088	4097142	4197096	8071780	4036068	74252184
11%	1202980	5550120	11972772	10623506	13016408	10831320	6940989	4507164	4616806	8878961	4439675	82580699
12%	1391742	6164003	13283903	11882020	14261735	11839802	7602887	4917186	5036515	9686142	4843282	90909217
13%	1580504	6777886	14595034	13140565	15507061	12848285	8263786	5327240	5456225	10493323	5246888	99237797
14%	1769267	7391801	15906164	14399111	16752388	13856767	8926718	5737262	5875934	11300504	5650495	107566378
15%	1957997	8005624	17217295	15657624	17997682	14865250	9588618	6147317	6295644	12107686	6054102	115894999

Note: the foregoing figures are expressed in dollars of the undivided years. Subsequent rates in the general price level [illegible] higher dollar figures to give equal present purchasing power.

	469314	622653	268299	338985	349758	672651	336339	3067399				
	1607086	1462455	819882	680697	699516	1345302	672678	7352343				
970	2549858	2302857	1371465	1022382	1049274	2017953	1009017	13549410				
600	3582630	3143259	1923048	1364094	1399032	2690604	1345356	20332930				
480	4620375	3983661	2474658	1705779	1748790	3363255	1681695	27174474				
360	5658147	4824063	3026241	2047491	2098548	4035906	2018034	34114984				
970	6695919	5664465	3577824	2389176	2448306	4708557	2354373	41055390				
450	7733691	6504867	4129407	2730888	2797064	5381208	2690712	47995875				
960	8771463	7345269	4680990	3072573	3147822	6053832	3027051	54936360				
390	9809235	8185694	5232573	3414285	3497580	6726483	3363399	61876818				
220	10847007	9026100	5784156	3755970	3847338	7399134	3699729	68817249				
830	11884779	9866502	6335739	4097656	4197096	8071785	4036068	75757680				
716	12922551	10706904	6887322	4439367	4546854	8744436	4372407	82698165				
790	13960296	11547306	7438932	4781052	4896612	9417087	4708746	89638650				
200	14998068	12387708	7990516	5122764	5246370	10089738	5045085	96579040				

	563177	746464	321959	406782	419710	807181	403607	3668880
	1808503	1754946	983858	816836	839419	1614362	807214	8822810
238	3053830	2763428	1645758	1226858	1259129	2421544	1210820	16259292
152	4299156	3771911	2307658	1636913	1678838	3228725	1614427	24399112
298	5644450	4790393	2969590	2046935	2098548	4035906	2018039	32609370
443	6789776	5788876	3631499	2456989	2518258	4843087	2421641	40937882
356	8035103	6797358	4293389	2867011	2937967	5650268	2825248	49266467
702	9280429	7805840	4955288	3277066	3357672	6457950	3228858	57596050
115	10525756	8814323	5617188	3687088	3777396	7265598	3632461	65923567
161	11771082	9822838	6279088	4097142	4197096	8071780	4036068	74252184
506	13016408	10831320	6940989	4507164	4616806	8878961	4439675	82580699
206	14261735	11839802	7602887	4917186	5036515	9686142	4843282	90909217
765	15507061	12848285	8263786	5327240	5456225	10493323	5246888	99237797
111	16752388	13856767	8926718	5737262	5875934	11300504	5650495	107566378
124	17997682	14865250	9588618	6147317	6295644	12107686	6054102	115894999

undivided years. Subsequent rates in [illegible] to give equal present purchasing power.

5715

Continental Ore Corp.
Computation of Loss of Profits from Possible Sale of Ferrovanadium Based Upon Various Possible Shares of the Market

page 1

	1939 (½ year)	1940	1941	1942	1943	1944	1945	1946	1947	
Pounds of ferrovanadium sold by defendants	582575	1894742	4046695	3884361	3943589	3112605	2042911	1265545	1295397	2491
Pounds of ferrovanadium sold by plaintiff (rounded to nearest pound)	26954	37122	75606	99394	21054	8087	10492	100	-	-
Possible shares of the market that plaintiff might have had, less amounts actually sold, in pounds:										
10%	-	-	-	-	17382	23039	9937	12555	12954	24
20%	-	773	5328	-	55818	54165	30366	25211	25908	49
30%	-	19720	45795	17137	94254	85291	50795	37866	38862	74
40%	-	38668	86262	55980	132690	116417	71224	50522	51816	99
50%	2175	57615	126729	94824	171125	147543	91654	63177	64770	124
60%	8001	76563	167196	133668	209561	178669	112083	75833	77724	149
70%	13826	95510	207663	172511	247997	209795	132512	88488	90678	174
80%	19652	114457	248130	211355	286433	240921	152941	101144	103632	199
90%	25478	133405	288597	250198	324869	272047	173370	113799	116586	224
100%	31304	152352	329064	289042	363305	303174	193799	126455	129540	249
110%	37129	171300	369530	327886	401741	334300	214228	139110	142494	274

3	1944	1945	1946	1947	1948	1949 (6 mos.)	Totals
89	3112605	2042911	1265345	1295397	2491294	1245697	11705411
54	8087	10492	100	—	—	—	228809
82	23039	9937	12555	12954	24913	12457	113237
18	54165	30366	25211	25908	49826	24914	272309
54	85291	50795	37866	38862	74739	37371	501030
90	116417	71224	50522	51816	99652	49828	753059
25	147543	91654	63177	64770	124565	62285	1006462
61	178669	112083	75833	77724	149478	74742	1263518
97	209795	132512	88488	90678	174391	87199	1520570
33	240921	152941	101144	103632	199304	99656	1777625
69	272047	173370	113799	116586	224216	112113	2034678
05	303174	193799	126455	129540	249129	124570	2291734
41	334300	214228	139110	142494	274042	137027	2548787
77	365426	234657	151765	155448	298955	149484	2805840
13	396552	255086	164421	168402	323868	161941	3062895
48	427678	275516	177076	181356	348781	174398	3319950

EXCERPTS I

[Handwritten not
H. F. Gunlock—A

APPROPRIATIO
Engineer Service,
1942-1943

CONTRACTOR & A

CONTRACT FOR:

AMOUNT:

LOCATION:

PAYMENT:

The supplies a
ment are authori
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ties, the availabl
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EN

(1 year)								
Pounds of ferrovanadium sold by defendants	582575	1894742	4046695	3884361	3943589	3112605	2042911	1265545
Pounds of ferrovanadium sold by plaintiff (rounded to nearest pound)	26954	37122	75606	99394	21054	8087	10492	100
Possible shares of the market that plaintiff might have had, less amounts actually sold, in pounds:								
1%	-	-	-	-	7382	23039	4937	12555
2%	-	773	5328	-	55618	54165	30366	25211
3%	-	18320	45795	17137	14254	85291	50795	37866
4%	-	38668	86262	55980	132690	116417	71224	50522
5%	2175	57615	126729	94824	171125	147543	91654	63177
6%	8001	76563	167196	133668	209561	178669	112083	75833
7%	13826	95510	207663	172511	247997	209795	132512	88488
8%	19652	114457	248130	211355	286433	240921	152941	101144
9%	25478	133405	288597	250198	324869	272047	173370	113799
10%	31304	152352	329064	289042	363305	303174	193799	126455
11%	37129	171300	369530	327886	401741	334300	214228	139110
12%	42955	190247	409997	366729	440177	365426	234657	151765
13%	48781	209194	450464	405573	478613	396552	255086	164421
14%	54607	228142	490931	444417	517048	427678	275516	177076
15%	60432	247089	531398	483260	556484	458804	295945	189732

This contract is authorized by the following laws: Statutory Authority **** Title II of the First War Powers Act, 1941, Act of December 18, 1941 (Public Law 354–77th Cong.), and Executive Order No. 9001, dated December 27, 1941.

[fol. 518]

CONTRACT FOR SUPPLIES

THIS CONTRACT, entered into this 1st day of September, 1943, effective as of the 1st day of June, 1943, by the UNITED STATES OF AMERICA (hereinafter called the "Government"), represented by the Contracting Officer executing this contract, and UNITED STATES VANADIUM CORPORATION, a corporation organized and existing under the laws of the State of Delaware of the City of New York in the State of New York, (hereinafter called the "Contractor"), witnesseth that the parties hereto do mutually agree as follows:

ARTICLE I—SCOPE OF THIS CONTRACT

(a) The Contractor shall, with the utmost secrecy and dispatch, furnish and deliver to the Government, f.o.b. Contractor's plant at Uravan, Colorado, for a period of two years and such additional period or periods as the Government and the Contractor may agree upon except as provided under Article 8 hereof, sufficient B containing therein approximately C units of D and E units of F per month.

(b) The Government shall pay to the Contractor the sum of One Dollar and Ten Cents ($1.10) per G unit for the D contained in the B and thirty cents (30¢) per G unit for the F contained in the B.

(c) The Contractor shall at the expense of the Government, do all things necessary to ship the B to such location or locations as the Contracting Officer may direct.

(d) The meaning of code symbols B, C, D, E, F and G shall be as contained in Secret Letter dated June 1, 1943.

The contents of said secret letter are hereby made a part of this contract in the same manner as though fully set forth herein.

ARTICLE 2—SAMPLING AND ASSAY

(a) Specifications for the B are to be not less than ten percent (10%) D and the ratio of D to F shall be a ratio approximately five parts of D to not more than one part of F.

(b) The B will be sampled at the plant to which it is sent for processing. One sample shall be taken and this sample shall be divided into four parts, of which one part will be given to the Contractor, one part will be given to the processing plant and two parts retained by the Government. One part retained by the Government will be forwarded to the National Bureau of Standards for D and F assays. The result of this assay shall be considered final unless either party objects, in which event the reserve part retained by the Government shall be submitted to a mutually acceptable third party. The assay result so obtained will be final and binding on all parties.

* * * * * * *

[fol. 519] IN WITNESS WHEREOF, the parties hereto have executed this contract as of the day and year first above written.

THE UNITED STATES OF AMERICA

By /s/ JOHN R. RUHOFF
John R. Ruhoff,
Lt. Col., Corps of Engineers,
Contracting Officer.

UNITED STATES VANADIUM CORPORATION

By /s/ J. R. VAN FLEET KR
Vice President

(Seal)

Witnesses:

/s/ S. E. Webb
244 W. 72nd St., New York, N. Y.
(Address)

/s/ W. Haldane
320 E 42nd St New York N. Y.
(Address)

• • • • • • •

[fol. 521]

In United States District Court

Excerpts from Defendant Union Carbide's Exhibit No. U-W

[Handwritten notations—Classification cancelled 5/24/57—H. F. Gunlock—AEC Class'n Div.]

This document consists of 17 page(s)
No. 3 of 12 copies Series A

APPROPRIATION: 210/40141
E. P. of E & S
1940-1944

CONTRACT NO. W-7405 eng-250
Dated:

WAR DEPARTMENT

Contractor & Address	UNITED STATES VANADIUM CORPORATION 30 East 42nd Street New York, New York
Contract for:	Materials F and D
Amount:	Approximately $250,000.00
Location:	"E"
Payment: To be made by:	Finance Officer, U. S. Army, Knoxville, Tennessee.

The supplies and services to be obtained by this instrument are authorized by, are for the purposes set forth in, and are chargeable to the following procurement authorities, the available balances of which are sufficient to cover the cost of the same:

8-25562 P110-08

This contract negotiated and executed under the First War Powers Act, 1941, and Executive Order No. 9001.

Jul 15 1944

[fol. 522] THIS CONTRACT entered into this 26 day of June, 1944, effective as of the 10th day of July 1943, by and between THE UNITED STATES OF AMERICA (hereinafter called the "Government"), represented by the Contracting Officer executing this contract, and UNITED STATES VANADIUM CORPORATION, a corporation organized and existing under the laws of the State of Delaware, of the City of New York, in the State of New York, (hereinafter called the "Contractor"),

WITNESSETH THAT the parties hereto do mutually agree as follows:

ARTICLE I—SCOPE OF THIS CONTRACT

1. The Contractor agrees to sell to the Government and the Government agrees to purchase from the Contractor upon the terms and conditions hereinafter set forth, sufficient S-2 from the Contractor's stockpiles at Location E, consisting of approximately 150,000 L Units of S-2 with such quantities added to the stockpiles as may result from accumulations of S-3, during the term of this contract, to fulfill the requirements of the Government GU plant at Location E during the period July 10, 1943 to July 1, 1944, with prior right to the Contractor to withdraw any quantities of S-2 required to fulfill other commitments with the Manhattan District. The Contractor further agrees to

sell to the Government from and after July 1, 1944, the S-2 remaining in such stockpiles with such quantities added to the stockpiles as may result from accumulations of S-3 during the period until termination or completion of Contract No. W-7405 eng-32, upon the same terms and conditions as hereinafter set forth, subject to the right of the Contractor to withdraw from said stockpiles any S-2 that may be required by it to fulfill other commitments it may have with the Manhattan District, Corps of Engineers, requiring the use of said S-2. The Government reserves the right to reject any portion or quantity of S-2 which the Contractor may offer.

2. The Government shall take deliveries of such S-2 at the site of said stockpiles at the Contractor's plant at Location E, commencing on the date on which the operation of the Government GU plant at Location E shall start and continuing thereafter at the average rate of approximately 150 L units per day until July 1, 1944, and thereafter at such rate as the Contracting Officer deems necessary for the operation of the Government GU plant and the Contractor's GP plant, both at Location E, in accordance with the terms of Contract No. W-7405 eng-32.

3. The S-2 purchased under Section 1. above shall be processed in accordance with the provisions of Contract No. W-7405 eng-32, as amended, either in the Government GU plant or in the Contractor's GP plant, both on Location E. The residues that may result from such processing shall become the property of the Government. The resultant GU and GP shall be shipped in accordance with directions of the Contracting Officer at the Government's risk and expense to the Government's BJ plant at Location T. Records of weight of all GU and GP shipped from Location E shall be available both to the Government and to the Contractor. This material so shipped shall be processed to BJ and W in the Government's BJ plant at Location T. Payment for the S-2 purchased under Section 1. above shall be made on or before the 25th day of the second month following the receipt of the GU and GP at the BJ plant at Location T on the basis of Sixty Cents ($.60) per N Unit of D recovered in the form of BJ and

Sixty-Two Cents ($.62) per N Unit of F recovered in the form of W in accordance with the provisions of Article III below.

• • • • • • •

[fol. 523] IN WITNESS WHEREOF, the parties hereto have executed this contract as of the day and year first above written.

THE UNITED STATES OF AMERICA

By /s/ K. D. NICHOLS
K. D. NICHOLS
Col. Corps of Engineers
Contracting Officer

UNITED STATES VANADIUM CORPORATION

By /s/ BLAIR BURWELL KR
Vice President
30 E. 42nd St., New York 17, N. Y.
(Business Address)

WITNESSES:

/s/ KENNETH RUSH
30 E. 42nd St., New York 17, N. Y.
(Address)

/s/ CATHERINE GORDON
30 E. 42nd St., New York 17, N. Y.
(Address)

I J. S. Behringer certify that I am the Secretary of the Corporation named as Contractor herein; that Blair Burwell who signed this contract on behalf of the Contractor was then Vice President of said corporation; that said contract was duly signed for and on behalf of said corporation by authority of its governing body and is within the scope of its corporate powers.

IN WITNESS WHEREOF, I have hereunto affixed my hand and the seal of said corporation this 26th day of June 1944.

/s/ J. S. BEHRINGER

(Corporate Seal)

• • • • • • •

[fol. 524]

EXCERPTS FROM DEFENDANT UNION CARBIDE'S EXHIBIT No. U-X

[Handwritten notations—Classification cancelled 5/24/57—H. F. Gunlock—AEC Div. of Class'n]

This document consists of 44 page(s)
Number 3 of 7 copies, Series A

Contract No. W-7405 eng-32

Dated: January 25, 1943

NEGOTIATED CONTRACT /s/ KDN

APPROPRIATION: 212/30905
Engineer Service, Army,
1942-1943

FIXED FEE
DESIGN, ENGINEERING,
CONSTRUCTION, EQUIPMENT
AND
OPERATION CONTRACT

CONTRACTOR: UNITED STATES VANADIUM CORPORATION
NEW YORK, NEW YORK

CONTRACT FOR: Design, Engineering, Construction, Equipping, and Operation of two sludge plants for the manufacture of SOR sludge and of one refining plant to produce SOQ and SOP oxide.

LOCATION: One sludge plant at Uravan, Colorado, on land owned by the Contractor; one sludge plant at Durango, Colorado, on land leased by Metals Reserve Company and owned by American Smelting and Refining Company; and the refining plant at Grand Junction, Colorado, on land to be provided by the United States Government.

ESTIMATED COST:

TITLE I $733,730

TITLE III $ 10,000

TITLE IV Exclusive of fixed fee—$110,000 per month.

FIXED FEE FOR TITLE IV: $6,000.00 per month.

PAYMENT: To be made by Finance Officer, U. S. Army at: U. S. Engineer Office, Manhattan District, New York, N. Y.

The supplies and services to be obtained by this instrument are authorized by, are for the purpose set forth in, and are chargeable to the following procurement authority or authorities, the available balances of which are sufficient to cover the cost of the same:

ENG 31110 P430-10 A-0905-23

This contract is authorized by the following laws:

Title II of the First War Powers Act, 1941, Act of December 18, 1941 (Public Law 354–77th Cong.), and Executive Order No. 9001, dated December 27, 1941.

* * * * * * *

[fol. 525] IN WITNESS WHEREOF, the parties hereto have executed this contract in triplicate as of the day and year first above written.

THE UNITED STATES OF AMERICA

By /s/ K. D. NICHOLS
K. D. NICHOLS,
Col., Corps of Engineers,
Contracting Officer.

UNITED STATES VANADIUM CORPORATION

By /s/ J. R. van FLEET KR
Vice-President

30 East 42nd Street, New York, N. Y.
(Business Address)

Two Witnesses as to
Execution by the
Contractor:

/s/ KENNETH RUSH
30 East 42nd Street
New York, N. Y.
(Address)

/s/ CATHERINE GORDON
30 East 42nd Street
New York, N. Y.
(Address)

• • • • • • •

[fol. 526]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-3-G

January 26, 1944

Imperial Paper and Color Corporation
Pigment Color Division
Glens Falls, N. Y.

Attention: Mr. A. F. Brown, General Manager

Gentlemen:

Lead Vanadate

My trip to Washington last week was delayed since I could not make all the appointments I wanted to; and therefore I had to postpone it until yesterday.

I saw the competent gentlemen in Metals Reserve and WPB and they confirmed that the sample of 25 pounds of the South African lead vanadate has been ordered shipped and is most probably in transit.

I further learned that about 900 tons of this material will arrive early in February, and in this connection we would very much like to discuss an idea with you which we believe would be of great importance.

We wonder whether you intend to be in New York one of these days, or early in February so that we may discuss this matter in detail.

Flue Dust

Mr. Johnson was in our office yesterday and offered us a lot of 8 to 9 tons of flue dust of 13.11% V_2O_5 content.

This would correspond to about 2200 lbs. of V_2O_5 contained, and it is our opinion that we should buy this lot for you at the price of 45¢ per pound of V_2O_5 so that you can start your tests on an industrial scale without further delay.

We will shortly send you a description of the process for treating lead vanadate and you will find that the kiln you have and which Mr. Leir saw when you showed him your equipment, can most likely be used for the treatment of lead vanadate and flue dust, interchangeably. This, of course, would make things very simple for you.

We will call you tomorrow in order to discuss this matter and if you agree, we will buy these 8 or 9 tons of flue dust for immediate shipment to you.

Very truly yours,

CONTINENTAL ORE COMPANY

Manager

M. Wolf/hc

[fol. 527]

DEFENDANT UNION CARBIDE'S EXHIBIT No. U-3-J

IMPERIAL PAPER AND COLOR CORPORATION
PIGMENT COLOR DIVISION
GLENS FALLS, N. Y.

December 1, 1947.

Mr. M. Wolf,
Continental Ore Company,
500 Fifth Avenue,
New York 18, N. Y.

Dear Mr. Wolf:—

You will remember about ten days ago we told you that we had on hand some Vanadium Oxide that analyzed about 15% metallic iron and 75.7% V_2O_5. You asked us to send you a sample representing this material, and we are forwarding to you today about one pound of this fused Vanadium Oxide X-521, representing approximately 2600 pounds,

which is batch U-15074. It is our understanding that you will submit this to one of your clients, and if you can obtain an order on it, we will invoice it to you at $1.10 per pound, it being our understanding that you will offer it to your customer at the present market of $1.20 per pound.

Awaiting your report, and trusting that we may receive an order for it, we are

Very truly yours,

IMPERIAL PAPER AND COLOR CORPORATION

/s/ A. F. BROWN
General Manager
Pigment Color Division

AFB:AEG

ANY TECHNICAL INFORMATION FURNISHED IS BASED ON CAREFUL TESTS AND IS OFFERED FOR YOUR GUIDANCE, BUT WITHOUT GUARANTEE

[fol. 528]

IMPERIAL PAPER AND COLOR CORPORATION
PIGMENT COLOR DIVISION
GLENS FALLS, N. Y.

December 29, 1947.

Mr. M. Wolf,
Continental Ore Company,
500 Fifth Avenue,
New York 18, N. Y.

Dear Mr. Wolf:—

About a month ago you will recall we sent you a sample of Fused Vanadium Oxide, representing 2600 pounds, which we had on hand and which we wished to dispose of.

We would like to get some action on this matter, and are writing to ascertain if sufficient time has elapsed for you to get a reaction from your prospective customer, and if so whether or not the reply is favorable. The point is that

we are not trying to high pressure you, but we do want to get some action on this material, and if your customer is not interested, then we have several other leads we wish to pursue.

Awaiting your advices, we are

Very truly yours,

IMPERIAL PAPER AND COLOR CORPORATION

/s/ A. F. BROWN
General Manager
Pigment Color Division

AFB:AEG

ANY TECHNICAL INFORMATION FURNISHED IS BASED ON CAREFUL TESTS AND IS OFFERED FOR YOUR GUIDANCE, BUT WITHOUT GUARANTEE

[fol. 529]

December 31, 1947

Mr. A. F. Brown, General Manager
Pigment Color Division
Imperial Paper and Color Corporation
Glens Falls New York

Re: Fused Vanadium Oxide

Dear Mr. Brown:

We have your letter of December 29th.

Our customers are not too keen on the change-over from Ferro-vanadium to fused Vanadium Oxide although they had used the oxide during the war.

They have not definitely declined either but during this holiday period we cannot do very much useful pushing and we feel that if you have any other leads, we suggest you go ahead.

If our customer should decide eventually to use this material, we will just have to take our chances on its availability.

Kind personal regards for a very Happy New Year to you and your family.

Yours very truly,

Martin Wolf, Manager

MW:nk

[fol. 530]

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-3-K

IMPERIAL PAPER AND COLOR CORPORATION
PIGMENT COLOR DIVISION
GLENS FALLS, N. Y.

April 9, 1945.

Mr. M. Wolf,
Continental Ore Company,
500 Fifth Avenue,
New York 18, N. Y.

Dear Mr. Wolf:—

Replying to your letter of April 6th regarding a ton of V in the form of Fused Vanadium Oxide, we are sorry to tell you that we do not have any of this material on hand at the present time. We have been producing small quantities, but we made a shipment to Allegheny Ludlum a few days ago, and it will be six to eight weeks before we have any more available, because our labor situation is so tight, that processing of anything which we can defer is being handled on that basis at the present time, as we are shorter of men now than we have been at any time since the war started.

Regretting that this is the condition, we are

Very truly yours,

IMPERIAL PAPER AND COLOR CORPORATION

/s/ A. F. BROWN
General Manager
Pigment Color Division

AFB:AEG

(Army and Navy Flag)

ANY TECHNICAL INFORMATION FURNISHED IS BASED ON CAREFUL TESTS AND IS OFFERED FOR YOUR GUIDANCE, BUT WITHOUT GUARANTEE

[fol. 531]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-3-M

January 29, 1944

Imperial Paper and Color Corp.
Pigment Color Division
Glens Falls, N. Y.

Attention: Mr. A. F. Brown, General Manager

Gentlemen:

Re: Lead Vanadium from South Africa

We have your letter of January 21 and wish to say that the figures on Page 635 of the Minerals Yearbook, 1940, Revision of 1939, refer to metric tons of metallic vanadium (V) contained.

Therefore, total shipments from Southwest Africa, listed as being 514 metric tons V contained, correspond to 1,132,856 pounds of V contained, which is roughly 95,000 pounds of metallic V per month.

The Otavi material alone at the present rate of production amounts to:

200 tons per month of 9% V_2O_5 average,
equaling 36,000 lbs. V_2O_5 or 20,000 lbs. of V per month.

There are other sources in South Africa, as well in Northern Rhodesia, so that this origin alone should be a safe basis for operations.

This does not take into account any flue dust to be obtained locally here, nor any other vanadium-bearing materials from South America, particularly Peru and from Central America, particularly Mexico.

Very truly yours,

CONTINENTAL ORE COMPANY

Manager

M. Wolf/hc

[fol. 532]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-3-N

December 4, 1944

Mr. A. F. Brown, General Manager
Imperial Paper & Color Corp.
Pigment Color Division
Glens Falls, N. Y.

CONFIDENTIAL

Re: Metals Reserve's Stock
of Lead Vanadate

Dear Mr. Brown:

A friend of ours at Metals Reserve suggested that since we cannot make further purchases of the Otavi lead vanadate at the present time, we should write something to them in order to keep this matter open in their files. You know that we are urging them not to sell it to any other parties, but to keep it until you are ready to proceed.

Such a letter, therefore, should point out that your process for recovering vanadium pentoxide has been perfected and that you are eager to go ahead. However, things have been held up because of the present manpower shortage, and as soon as there is a change in the present labor situation, you intend to proceed with the vanadium production on a substantial scale.

Of course, this letter should not mention anything about Metals Reserve, but should just be a spontaneous letter to us.

May we hear from you?

Very truly yours,

CONTINENTAL ORE COMPANY

Manager

MWolf
SG

[fol. 533]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-3-R

WILLIAM A. BAEHR ORGANIZATION, INC.
231 SOUTH LA SALLE STREET
CHICAGO

A. C. WINTERS, PRESIDENT
WAYNE P. HENDRICKS, VICE PRESIDENT
WILLIAM B. BAEHR, SEC'Y-TREASURER

May 11th, 1943

Mr. Henry J. Leir
Continental Ore Company
500 Fifth Ave.
New York, N. Y.

Dear Mr. Leir:

We have for acknowledgment and thanks your letter of May 5th, together with copies of letter to you from Wade, Curran and Company, Farmington, New Mexico and your reply to them regarding carnotite concentrates which they offer for sale. We are quite familiar with this situation as we have every reason to believe that some of this ore came from claims on which we believe we hold title. This, however, was disputed by the gentleman whom they mention as recently having died, and the matter is now in the hands of the attorneys.

In the writer's phone conversation with Mr. Wolff on April 12th, he told you that owing to labor shortage that the operations of our mill had stopped. We first lost our chemist and then 5 of the key men and we have not since been able to replace any of these men. We are sorry to have to tell you that the mill has not been operated since then and at the present we cannot hazard any guess as to when operations will be resumed.

We have retained all of the men and are using them in mining and development work and we are continuing to mine ore which is being sold as raw ore to the Metal Reserves Corporation.

We shall advise you as soon as we see any change in the present situation.

Very truly yours,

/s/ W. P. Hendricks

WPH:CF

[fol. 534]

In United States District Court

Defendant Union Carbide's Exhibit No. U-3-T

December 8, 1943

North Continent Mines
Metals Reserve—Vanadium

Called Mr. Hendricks, who apologized for not having answered our letter of November 20 because he was out of town.

At present there is no change contemplated with regard to their operations of North Continent Mines.

They are selling their vanadium ore to Metals Reserve via Vanadium Corporation of America. They realize more for the ore than they would if they made vanadic acid. Incidentally, they have no men to operate the mill even if they wanted.

He asked us if we are still in the market for vanadic acid and I told him that we are. I told him further that the price is $1.10, unchanged, and he remarked that he is much better off if he sells the ore.

He does not know how much longer his contract with Metals Reserve runs.

He promised to let us know whenever conditions change particularly with regard to a possible reorganization of the entire concern in case it would affect North Continent Mines proper.

mw/sk

[fol. 535]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-4-C

METALS RESERVE COMPANY
WASHINGTON, D. C.

March 5, 1943

Mr. Henry J. Leir
Continental Ore Company
500 Fifth Avenue
New York

Dear Mr. Leir:

Receipt is acknowledged of your letter of March 1, 1943, regarding an allocation by the War Production Board of 20,000 pounds of contained vanadium in vanadium concentrates. You request information regarding when you may expect delivery.

We regret to inform you that although we have received the allocation, because of previous commitments we have no available material with which to fill your order, and do not anticipate having any in the near future. We have discussed the matter with the War Production Board, and you will probably receive a communication from that Agency.

Very truly yours,

/s/ DEWITT C. SCHIECK

DeWitt C. Schieck
Assistant Vice President

(Uniform Domestic Straight Bill of Lading, adopted by Carriers in Official, Southern, Western and Illinois Classification territories, March 15, 1922, as amended August 1, 1930, and June 15, 1941.)

UNIFORM STRAIGHT BILL OF LADING—ORIGINAL—NOT NEGOTIABLE

(Prescribed by the Interstate Commerce Commission)

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading:

The property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below, which said company (the word company being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its own road or its own water line, otherwise to deliver to another carrier on the route to said destination. It is agreed, as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained, including the conditions on back hereof, which are hereby agreed to by the shipper and accepted for himself and his assigns.

From ELECTRO METALLURGICAL COMPANY At Alloy, W. Va. Agent's No. _____

B₂ PITTSBURGH WHEELING Company DATE SHIPPED [illegible] 19

CUSTOMER'S ORDER NO. SEAL NOS. OUR ORDER NO. 24,092

Consigned to and Destination: CONTINENTAL ORE CORPORATION C/O CLIMAX MOLYBDENUM COMPANY LANGELOTH, PENNA.

Mail or street address—For purposes of notification only:

Route: TRUCK Car Initial: Car No.:

Number Packages	DESCRIPTION, SPECIAL MARKS AND EXCEPTIONS	WEIGHT (Subject to Corr.)	CLASS or RATE	CHECK
17	BAGS VANADIUM OXIDE	00026		
	*FOR INSURANCE PURPOSES VALUE OF MATERIAL IS $50.00 PER PACKAGE.			

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

_____ _____
(Signature of consignor.)

If charges are to be prepaid, write or stamp here, "To be Prepaid." PREPAID

Received $_____ to apply in prepayment of the charges on the property described hereon.

_____
Agent or Cashier

Per _____
(The signature here acknowledges only the amount prepaid.)

Charges advanced:
$_____

*If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is "carrier's or shipper's weight."
NOTE—Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.
The agreed or declared value of the property is not exceeding _____ per _____
specifically stated by the shipper to be not exceeding _____ per _____

ELECTRO METALLURGICAL COMPANY, Shipper, Per [illegible] _____ Agent

Permanent post-office address of shipper, Alloy, W. Va.

Per [illegible]

UPN-432-A 11-42 @ 23479

[fol. 536]

WAR PRODUCTION BOARD
WASHINGTON, D. C.

March 5, 1943

IN REPLY REFER TO:
Steel Division
Room 1521
Tempo R

Mr. Martin Wolf
Continental Ore Corporation
500 Fifth Avenue
New York, New York

Dear Mr. Wolf:

We have been notified by Metals Reserve Company that the total production of the Durango Plant has already been contracted for, and consequently, there will be no available material for allocation from that plant.

On your last visit to Washington, we warned you of the possibility of this, and while we have made an allocation from Metals Reserve to Continental Ore, you will understand from the above that this allocation cannot be filled.

Very truly yours,

/s/ S. C. STIMMEL

Ferro-Alloys Branch
S. C. Stimmel

[fol. 537]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-4-D

CONTINENTAL ORE COMPANY
500 FIFTH AVENUE
NEW YORK

[Stamp—Received at New York—April 12, 1943—Room 1719]

April 9, 1943

Electro Metallurgical Co.
30 East 42 Street
New York, N. Y.

Gentlemen:

Re: Vanadium Pentoxide

We refer to the allocation made out by the WPB under date of April 7 in our favor in the amount of

10,000 lbs. of metallic V contained
(17,843 lbs. contained V205)
in Vanadium Concentrates

We would very much appreciate your kindly informing us when this material is expected to be ready for shipment so that we may give you our shipping instructions.

Thank you for your kind attention.

Very truly yours

CONTINENTAL ORE COMPANY

/s/ H. J. LEIR
Henry J. Leir

hjl/sk

[Handwritten notation—Lack. 4-2220]

[fol. 538]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-4-E

[Handwritten notations—R—\ —HMR]

CONTINENTAL ORE COMPANY
500 FIFTH AVENUE
NEW YORK

April 14, 1943

Electro Metallurgical Sales Corp.
30 East 42 Street
New York, N. Y.

Attention: Mr. T. F. O'Heir

Gentlemen:

Re: 10,000 lbs. of V contained
in Vanadium Concentrates

We refer to our telephone conversation of this afternoon and duly noted that the above quantity which was allocated to us by the WPB will be ready for shipment within a few days.

Please ship this material to:

Continental Ore Company
c/o Climax Molybdenum Co.
Langeloth, Pa.

Since this material originates in Columbiana, Ohio, we kindly ask you to ship by truck which insures the speediest delivery.

Our insurance policy requires that for truck shipments the value is to be declared as being minimum $50 per shipping package (bag or drum) and we would appreciate your mentioning this in the bill of lading.

Thank you for your kind attention.

Very truly yours

CONTINENTAL ORE COMPANY

/s/ H. J. LEIR
Henry J. Leir

hjl/sk

[fol. 539]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-4-F

April 29, 1943

Electromet
Climax
Metals Reserve V

Spoke to Mr. O'Heir of Electromet. He believes that they are shipping today 5,700 lbs. of V contained by truck from Columbiana to Langeloth. The balance should also go out today from their plant at Alloy (? W. Va. ?).

They had some trouble and could not get out the entire quantity as they had intended earlier this month.

I then spoke to Mr. Donald R. Harrison, Works Manager.

He believes that the material is about ¼" in size. They have grinding facilities but these are taxed to capacity at the present time. However, he would look into this matter and see whether they could grind our material in the future to 10 mesh.

mw/sk

[fol. 540] April 29, 1943

Mr. Donald R. Harrison, Works Manager
Electro Metallurgical Sales Co.
30 East 42 Street
New York, N. Y.

Dear Mr. Harrison:

Re: Vanadium Pentoxide

We refer to our telephone conversation of this morning and wonder whether, for future shipments to us, you would be in a position to grind the vanadium concentrates to about 10 mesh size with not too many fines (below 80 mesh).

We would very much appreciate your looking into this matter and letting us have your news at your earliest convenience.

Thank you for your cooperation.

Very truly yours

CONTINENTAL ORE COMPANY

Manager

M. Wolf/sk

Defendant's Exhibit No. U-4-I

AR 166-

ELECTRO METALLURGICAL SALES CORPORATION
UNIT OF UNION CARBIDE AND CARBON CORPORATION
UCC

DIVISION ACCTG. OFFICE
30-20 THOMSON AVENUE
LONG ISLAND CITY, N. Y.

Customers { Order No. & Date / Requisition No. / Contract No.

Invoice Date 4/30/43
Invoice No. 24892
Shipper's Lot No. SEE BELOW

Column reserved for use of customs
P. A. Invoice No.
Voucher No.

Shipped to
Destination SAME, C/O CLIMAX MOLYBDENUM CO
LANGELOTH, PA.

Terms: Net Cash 30 days following date of invoice in New York Exchange

CONTINENTAL ORE CORP.
500 FIFTH AVE.
NEW YORK, N.Y.

CHECKED { With Order / F. O. B. Point / Price / Calculations / Transportation / Trans. Chgd. Back

Date Shipped 4/30/43 From ALLOY, W. VA. F. O. B. Cars Niagara Falls, N. Y. Basis
Car No. and Init.
How Shipped and Route PITTSBURGH WHEELING TRUCK Freight charges allowed to DEST

"ELECTROCET" BRAND VANADIUM OXIDE FUSED

SIZE	GRADE	TESTING	GROSS	TARE	NET	POUNDS CTD.	PRICE	AMOUNT-DOLLARS
								19682.76

LOT#	BAGS	GROSS	TARE	NET	V205	#CTD V205
1208	10	1170	20	1150	88.00	1012.00
1205	100	11700	200	11500	87.00	10005.00
1207	68	7956	136	7820	88.00	6881.60
						17898.60

1.15 #CTD V205

20583.39

E

THE PRICES SPECIFIED HEREIN ARE NOT, TO OUR KNOWLEDGE, IN EXCESS OF THOSE EXISTING ON THE APPLICABLE MAXIMUM PRICE REGULATION OR THE ORDER OF PRICE ADJUSTMENT

List of weights and analysis attached. Freight prepaid to destination.

All goods covered by this invoice were produced in compliance with the FAIR LABOR STANDARDS ACT of 1938.

C/C

Above Materials received ..... 194.... and found ..... satisfactory. (Signed) ..... (Title) .....
Charge Account Approved Approved

[fol. 541]

In United States District Court
Defendant Union Carbide's Exhibit No. U-4-I

541

[fol. 543]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-4-I

CONTINENTAL ORE COMPANY
500 FIFTH AVENUE
NEW YORK

[Stamp—Received at New York—May 12, 1943—Room 1719]

May 11, 1943

Electro Metallurgical Sales Corp.
30 East 42 Street
New York, New York

Attention: Mr. T. F. O'Heir

Gentlemen:

Re: Your invoice #24892, April 30

We refer to your above invoice covering shipment of vanadium oxide and to our telephone conversation of last week.

Please arrange to send us a new invoice made out on the basis of $1.10 per lb. or send us your credit memorandum for the difference of 5¢ per lb. so that we can settle this invoice.

Thank you for your kind attention to the above.

Very truly yours

CONTINENTAL ORE COMPANY

/s/ H. J. LEIR
Henry J. Leir

hjl/sk

[fol. 544]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-4-J

[Letterhead of Electro Metallurgical Sales Corporation, New York, N. Y.]

May 18, 1943

Continental Ore Company
500 Fifth Avenue
New York, N. Y.

Gentlemen:

Re: Invoice No. 24892
April 30, 1943.

This replies to your letter of May 11th on the subject of the above invoice covering a shipment of vanadium oxide.

The price of $1.15 per pound of contained vanadium oxide is our regular price to any one for spot purchases of vanadium pentoxide in quantities of 500 pounds or more.

We trust that this will answer your question concerning the price included in the above mentioned invoice and that it will be passed for payment as rendered.

Very truly yours,

ELECTRO METALLURGICAL SALES CORPORATION

By: /s/ W. E. REMMERS

W.E.Remmers:JC

[fol. 545]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-4-K

CONTINENTAL ORE COMPANY
500 FIFTH AVENUE
NEW YORK

[Stamp—Received—At New York—May 20 1943—Room 1719]

May 19, 1943

Electro Metallurgical Sales Corp.
30 East 42 Street
New York, N. Y.

Attention: Mr. W. E. Remmers

Gentlemen:

Re: Invoice No. 24892/April 30, 1943

We received your letter of May 18 and wish to say that the WPB, Washington, made out the allocation for 10,000 lbs. of V contained in vanadium pentoxide in your name only because there was no material available at the Durango plant of the Metals Reserve from where we had received material previously.

All our material from Metals Reserve was invoiced at $1.10 per lb. of V205 contained, delivered our plant, and we had no reason to expect that we would be charged any other price.

Furthermore, these allocations will be continued either from Durango or from you and we believe that under these circumstances you will charge us the same price that we had agreed to pay to Metals Reserve since this was our definite understanding with them.

May we hear from you?

Very truly yours

CONTINENTAL ORE COMPANY

/s/ MARTIN WOLF
Manager

M. Wolf/sk

[fol. 546]

CONTINENTAL ORE COMPANY
500 FIFTH AVENUE
NEW YORK

May 19, 1943

Mr. H. M. Rich
Electro Metallurgical Sales Corp.
30 East 42 Street
New York, N. Y.

Dear Mr. Rich:

Re: 10,000 lbs. of V contained in
Vanadium Pentoxide/May Allocation

We refer to our telephone conversation of May 17 and are pleased to give you below the following order in conformity with the allocation received from the WPB, Washington:

MERCHANDISE	Vanadium Pentoxide—min. 85% V205 containing no detrimental impurities
SIZE	In small flakes
QUANTITY	10,000 lbs. of V contained in Vanadium Pentoxide
PRICE	$1.10 per lb. of V205 contained, delivered Langeloth, Pa.
SHIPMENT	Upon our release, probably around the end of May
TERMS	Net cash 30 days

We will give you our release in time for you to prepare this shipment.

Thank you for your kind attention.

Very truly yours

CONTINENTAL ORE COMPANY

/s/ MARTIN WOLF
Manager

M. Wolf/sk

[fol. 547]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-4-L

May 20, 1943

Continental Ore Company
500 Fifth Avenue
New York, N. Y.

Attention: Mr. M. Wolf

Gentlemen:

This refers to your letter of May 19th on the subject of invoice #24892 dated April 30, 1943.

The price of $1.15 specified on the invoice is that which applies to all spot sales of vanadium oxide in quantities of 500 pounds or more made to any one. This price has been established for a number of years and we do not believe that we would be justified in making any special concession in the nature of a price reduction for such material.

We trust that with this explanation you will authorize payment of the invoice as rendered.

Very truly yours,

ELECTRO METALLURGICAL SALES CORPORATION

By:

W.E.Remmers:JC

[fol. 548]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-4-M

CONTINENTAL ORE COMPANY
500 FIFTH AVENUE
NEW YORK

[Handwritten notation—W.E.R.—This]

May 21, 1943

Electro Metallurgical Sales Corp.
30 East 42 Street
New York, N. Y.

Attention: Mr. Walter E. Remmers

Gentlemen: Re: Invoice #24892 April 30, 1943

We received your letter of May 20 and can only repeat what we told you in ours of May 19 regarding the price which we expected to pay in view of our previous dealings with Metals Reserve.

We never did receive a contract from you and therefore had no reason to assume that your price would be any different from that which we paid for the previous material shipped through you from Metal Reserve's stocks.

However, we believe that we can overcome this difficulty in price resulting from the difference between spot and contract sales. We are perfectly willing to sign a contract with you for our requirements until the end of the year. At present, these requirements are estimated to amount to about 10 000 lbs. of V contained in pentoxide per month. This contract, at the usual price of $1.10 per lb. of V contained delivered, could then be considered as applying to the lot shipped in April.

We hope that you can cooperate with us along these lines and look forward to hearing from you.

Very truly yours

CONTINENTAL ORE COMPANY

/s/ MARTIN WOLF
Manager

M. Wolf/sk

[Stamp—Received at New York—May 22 1943—Room 1719]

[fol. 549]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-4-N

[Letterhead of Electro Metallurgical Sales Corporation, New York, N. Y.]

May 25, 1943

Continental Ore Company
500 Fifth Avenue
New York, N.Y.

Attention—Mr. M. Wolf

Gentlemen:

We acknowledge receipt of your letter of May 19 which constitutes an order covering 10,000 lbs. of vanadium contained in Vanadium Pentoxide in accordance with the allocation made to you by the War Production Board for May shipment.

We note that the price shown on your order is $1.10 per pound of V_2O_5 contained in the compound. Until such time as the question of price has been decided, we will be unable to accept your order at this price since the regular market price of this material is $1.15 per pound of V_2O_5 contained in the compound.

We will hold your order in our files until such time as the question of price has been determined and until an official release is obtained from you. In the meantime, we wish to thank you for having favored us with this business.

Yours very truly,

ELECTRO METALLURGICAL SALES CORPORATION

/s/ HERBERT M. RICH
District Manager

H.M.Rich/G

[fol. 550]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-4-O

CONTINENTAL ORE COMPANY
500 FIFTH AVENUE
NEW YORK

May 26, 1943

[Handwritten names illegible]

Electro Metallurgical Corp.
Division Accounting Office
30-20 Thompson Street
Long Island City, N. Y.

Gentlemen:

Re: Your invoice #24892 dated April 30, 1943
Fused Vanadium Oxide

Please be informed that we have instructed The New York Trust Company to send you their check in the amount of

$19,688.46? *OK @ $1.10 lb.*

against your above-named invoice.

Please note that this amount represents 17898.6 lbs. V205 at $1.10 whereas your invoice is based on a rate of $1.15.

We are in correspondence with Mr. W. E. Remmers regarding this difference.

Very truly yours

CONTINENTAL ORE COMPANY

/s/ HENRY J. LEIR
Henry J. Leir

hjl/sk

Italicized material handwritten.

[fol. 551]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-4-P

CONTINENTAL ORE COMPANY
500 FIFTH AVENUE
NEW YORK

[Stamp—Received—At New York—May 28 1943—Room 1719]

May 27, 1943

Electro Metallurgical Sales Corp.
30 East 42 Street
New York, N. Y.

Attention: Mr. W. E. Remmers

Gentlemen:

Re: Fused Vanadium Oxide

We refer to our previous correspondence regarding the price of the lot you shipped to us against WPB's April allocation.

If it is difficult for you to apply the price of $1.10 because no contract has been signed by either party, we feel that the only thing to do is to put at your disposal a like amount of fused vanadium oxide so that the entire transaction can be written off. In other words, we would replace the material shipped to us. This can be done by putting at your disposal a like amount out of the production of Nisley & Wilson for which we hold a contract with Metals Reserve at $1.10 and which has been allocated to us.

May we hear from you?

Very truly yours

CONTINENTAL ORE COMPANY

/s/ MARTIN WOLF
Manager

[fol. 552]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-4-Q

[Letterhead of Electro Metallurgical Sales Corporation, New York, N. Y.]

June 1, 1943.

Continental Ore Company
500 Fifth Avenue
New York, N. Y.

Attention: Mr. M. Wolf

Gentlemen:

We have your letter of May 27th as well as one written on May 26th by Mr. Henry J. Leir.

Although you propose to make a replacing shipment of fused vanadium oxide, Mr. Leir has advised us by way of our Long Island City Accounting Office that you are remitting on the basis of $1.10 per pound contained. In order to close the file on this subject, we are accepting your check representing payment for 17,898.6 pounds of vanadium oxide at $1.10 per pound as payment in full.

We wish to point out, however, that this adjustment in price is for the purpose of closing our present discussion and in no way establishes any precedent so far as future business is concerned. As we have indicated in our earlier correspondence, the established price on spot sales in the quantities under discussion is $1.15 per pound.

We are issuing a credit memorandum to adjust the original invoice from $1.15 to $1.10 per pound.

Very truly yours,

ELECTRO METALLURGICAL SALES CORPORATION

By: /s/ W. E. REMMERS

W.E.Remmers:JC

[fol. 553]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-5-G

Defendant Union Carbide's Exhibit No. U-5-D

For use in connection with Uniform Domestic Straight Bill of Lading adopted by Carriers in Official, Southern, Western and Illinois Classification territories, March 15, 1922, as amended August 1, 1930 and June 15, 1941 (Prescribed by the Interstate Commerce Commission.)

THIS MEMORANDUM is [redacted] knowledgment that a F[illegible]ading has been issue[illegible]s not the original Bill of Lading nor a copy or d[illegible] covering the proper[illegible]d herein and is inte[illegible]ly for filing or record. RECEIVED, subject to the classifications and tariffs [illegible] the date of the receip[illegible]arrier of the property d[illegible]s the Original Bill of Lading.

the property described below, in apparent good order, except as noted (cont[illegible] condition of contents of packages unk[illegible]. And, consigned, and destined as indic[illegible], which said company (the word company being understood throughout this contract as meaning any person or corporation in possession of the prop[illegible] the contract) agrees to carry to the usual place of delivery at said destination, if on its own road or its own water line, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained, including the conditions on back hereof, which are hereby agreed to by the shipper and accepted for himself and his assigns.

From ELECTRO METALLURGICAL COMPANY

Agent's No. ———

By NYC Company DATE SHIPPED APRIL 24 1946

CUSTOMERS ORDER NO. SEAL NOS. OUR ORDER NO.

ND 7460

Consigned to and Destination: CONTINENTAL ORE COMPANY
NEW YORK, N.Y.

Mail or street address—For purposes of notification only.

Route NOTIFY: CONSIGNEE - 500 5TH AVE. NEW YORK CITY - PHONE PA 6-6634

Car Initial IC
Car No. 14561

Number Packages	DESCRIPTION, SPECIAL MARKS AND EXCEPTIONS	WEIGHT (Subject to Corr.)	CLASS or RATE	CHECK
10 DRUMS	ORE N.O.I.B.N.	224#	.60	

WE CERTIFY THAT THIS IS AN EXACT COPY OF THE ORIGINAL BILL OF LADING.

ELECTRO METALLURGICAL DIV. UNION CARBIDE & CARBON CORPORATION

†This Shipment is Correctly Described
Correct Weight is _____ lbs.
Subject to Verification by the TRUNK LINE FREIGHT INSPECTION BUREAU.
According to Agreement No. 195
ELECTRO METALLURGICAL CO.
Per _____ Shipper

†Shipper's imprint in lieu of stamp, not a part of bill of lading adopted by Carriers.

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of consignor.)

If charges are to be prepaid, write or stamp here, "To be Prepaid." PREPAID

1.38
Received $ _____ to apply in prepayment of the charges on the property described hereon.

Agent or Cashier.

Per _____
(The signature here acknowledges only the amount prepaid.)

Charges advanced
$ _____

*If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is "carrier's or shipper's weight."
NOTE—Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.
The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding 5 CENTS per POUND

ELECTRO METALLURGICAL COMPANY, Shipper, Per _____ Agent

Permanent post-office address of shipper,

Per _____

UN-434-A 10-46 23089 © Ditto forms

552

[fol. 554]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-5-1

November 20, 1943

North Continent Mines, Inc.
231 S. La Salle Street
Chicago, Illinois

Attention: Mr. W. P. Hendricks

Gentlemen:

We read in the papers about the dissolution of the North Continent Utilities Corporation.

We would appreciate it very much indeed if you could tell us what the plans are with regard to your own firm; in other words, whether we can expect you to remain independent and sooner or later again become one of our suppliers.

Any information you can give us will, of course, be treated confidentially.

Very truly yours,

CONTINENTAL ORE COMPANY
Henry J. Leir

hjl/hc

[fol. 555]

February 18, 1944

Mr. W. P. Hendricks
North Continent Mines, Inc.
231 S. La Salle Street
Chicago, Illinois

Dear Mr. Hendricks:

I will arrive in Chicago on Monday, February 28, and will leave in the afternoon as usual for the west.

I will come to your office and hope to have the pleasure of seeing you for a few moments.

Very truly yours,

CONTINENTAL ORE COMPANY

Henry J. Leir

hjl/sk

[fol. 556]

June 2, 1944.

North Continent Mines, Inc.
231 South La Salle Street
Chicago, Illinois.

Att: Mr. W. P. Hendricks

Re: Vanadium

Gentlemen:

This is to refer to our last conversation, at which time you informed us that you did not anticipate re-opening your mill.

As we have not heard from you since, we assume that you are still shipping crude ore.

The pleasant relationship which we always maintained with you prompts us to submit the following:

We would not like to see your mines and mill pass into other hands, which might perhaps be competitors of ours in the vanadium field.

Some conversations which we had with some friends of ours lead us to think that there is a possibility of concluding a deal with you regarding your property whenever

you want to dispose of it. Substantial down payments would be no obstacle, and should you wish to maintain a share in the business rather than sell outright, this too, would be acceptable.

Will you be good enough to tell us whether you expect to reopen the mill in the not too distant future, or whether you would like to make some sort of a deal, in which case we would appreciate it if you would let us know your terms.

We look forward to hearing from you.

Very truly yours,

CONTINENTAL ORE COMPANY

Henry J. Leir

hjl/se

[fol. 557]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-5-L

August 28, 1939.

R. Poliakoff, M. E.,
113 W. 42nd Street,
New York, N. Y.

Dear Mr. Poliakoff,

We hereby confirm for regularity's sake that we asked you to buy for our account:

10.000 lbs. of fused Manadic Acid for shipment:

5.000 lbs. end of this week / early next week.
5.000 lbs. one week later.

Total 10.000 lbs., other conditions exactly as last.

Please arrange shipment in steel drums of the larger type, containing about 450 lbs. net.

Yours very truly,

CONTINENTAL ORE CORPORATION.

Paul M. Hirschland.

PMH/LL.

[fol. 558]

COPY

July 28, 1939

R. Poliakoff, M. E.
113 West 42nd Street
New York, N. Y.

Subject: Vanadic Acid

Gentlemen:

We are pleased to acknowledge your letter of July 26th confirming telephone order for 6,000 pounds of Vanadic Acid.

As advised you, we are changing the "Delivery" to read—"Freight allowed to Philadelphia", as we understand this is the point to which the material will move, and will delete from your letter the reference which you made to freight allowance.

We wish to thank you for your order and will await your shipping instructions.

Very truly yours,

Electro Metallurgical Sales Corp.

(signed) By: T. F. O'Heir

[fol. 559]

COPY

[Handwritten notation—Poliakoff]

July 26, 1939

Electro Metallurgical Sales Corp.
30 East 42nd St.—Room 1719
New York, N. Y.

Att: Mr. T. F. O'Heir

Gentlemen:

Subj: Vanadic Acid

This is to confirm the telephonic order which I gave you early this afternoon as follows:

Merchandise:	Vanadic Acid (fused V_2O_5 containing a minimum or 85% V_2O_5
Quantity:	6000 lbs.
Packing:	In drums of about 180 lbs. each
Price:	$1.10 (One Dollar 10¢) per 1 lb. of V_2O_5
Delivery:	The above price to be F.O.B. Niagara Falls, N. Y. with freight allowed in the amount equal to freight transportation charges from Niagara Falls, N. Y. to St. Louis, Mo.
Time of shipment:	Immediate delivery
Payment:	Upon presentation of shipping documents

I await your confirmation and shall let you have my shipping instructions by the next mail.

In the meantime, I beg to remain,

Yours very truly,

(Signed) R. Poliakoff

RP:FI

Defendant's Exhibit No. U-5-N

NEW YORK September 16, 1940

M Associated Metals & Minerals Corporation

40 Rector Street, New York City

S 704

CONTINENTAL ORE CORPORATION

500 FIFTH AVENUE

CABLE ADDRESS:
LATINORE

CODES:
A. B. C. 6TH EDITION
ACME & SUPPLT.

TELEPHONE:
LACKAWANNA 4-2221

5.442	lbs Fused Vanadic Acid	5.442.00 lbs			
	less moisture 0.08%	4.35 "			
	dry net	5.437.65 "			
	containing 91.34% V205	= 4.966.75 lbs V205	@$1.25	per lb	$6.208.44

Packing: Material is packed in 19 Iron Drums

Delivery: Ex Warehouse New York

Payment: Net cash against documents, including Ledoux & Co.'s certificates of sampling, weighing and analysis.

Weights: Gross 6036 lbs
Tare 594 lbs
Net 5442 lbs

Continental Ore Corporation

Paul M. Hirschland

√

[fol. 560]

In United States District Court
Union Carbide's Exhibit No. U-5-N

New York, September 30, 1940

Mercantile Metal & Ore Corporation

67 Broadstreet, New York City

S 715

CONTINENTAL ORE CORPORATION

500 FIFTH AVENUE

CABLE ADDRESS:
LATINORE

CODES:
A. B. C. 5TH EDITION
ACME & SUPPLT

TELEPHONE:
LACKAWANNA 4-2221

4.993	lbs Fused Vanadic Acid	4.993.00 lbs	
	less moisture 0.27%	13.48 "	
	Dry net	4.979.52 "	
	containing 86.13% V205 = 4.288.86 lbs V205 @ $1.25 per lb.		$5.361.08

Packing: Material is packed in 17 Iron Drums

Delivery: Ex Warehouse New York

Payment: Net cash against Delivery Order and Lescux & Co.'s certificates of sampling, weighing and analysis.

Weights:
Gross 5529 lbs
Tare 536 lbs
Net 4993 lbs

Continental Ore Corporation

Paul M. Hirschland
Treasurer

561

NEW YORK October 4th. 1940

Mercantile Metal & Ore Corp.

67 Broadstreet, New York City

S 749

CONTINENTAL ORE CORPORATION

500 FIFTH AVENUE

CABLE ADDRESS:
LATINORE

CODES:
A. B. C. 6TH EDITION
ACME & SUPPLY.

TELEPHONE:
LACKAWANNA 4-222

5,478	lbs Gas-Dried Vanadic Acid	5478.00 lbs			
	less moisture 2.47%	135.31 lbs			
	Dry net	5342.69 lbs			
	containing 85.45% V205 = 4565.33 lbs V205		@ 1.34¢	per lb	$61.140.37

Packing: Material is packed in 54 Iron Drums

Delivery: Ex warehouse New York

Payment: Net cash against Delivery Order on basis of Ledoux's certificates of sampling, weighing & analysis.

Weights: Gross 7054 lbs
Tare 1576 lbs
Net 5473 lbs

Continental Ore Corporation

Paul F. Hirschland
Treasurer

[Vol. 562]

593

October 30. 1940

Overseas Metal & Ore Corporation

CREDIT MEMORANDUM

Following our correspondence of yesterday we credit you as follows:

On 4,235.66 lbs V205 2(two) cents per lb.	$84.71

You will deduct this amount from our invoice S 761.

Continental Ore Corporation

Paul L. Hirschland
Treasurer

NEW YORK October 29, 1940

M Overseas Metal & Ore Corporation

29, Broadway, New York City

S 761

CONTINENTAL ORE CORPORATION

500 FIFTH AVENUE

CABLE ADDRESS: LATINORE
CODES: A. B. C. 6TH EDITION, ACME & SUPPLY.

TELEPHONE: LACKAWANNA 4-2221

Contract of August 19, 1940

5.082	lbs Fused Vanadic Acid 5.082.00 lbs less moisture 0.47% 23.89 lbs Dry net 5.058.11 lbs			
	containing 83.74% V205 = 4.235.66 lbs V205	@ $1.25 per lb.		$5.294.58

Packing: Material is packed in 18 iron drums

Delivery: Ex Warehouse New York

Payment: Net cash against Delivery Order on basis of Ledoux's certificates of sampling, weighing & analysis.

Weights: Gross 5647 lbs
Tare 565 lbs
Net 5082 lbs

Continental Ore Corporation

Paul H. Hirschland
Treasurer

[Vol. 564]

595

October 30, 1940

Associated Metals & Minerals Corporation

CREDIT NOTE

Following our correspondence of yesterday we have credited you as follows:

On 4,133.83 lbs V2O5 2(two) cents per lb. $82.68

You will deduct this amount from our Invoice S 774

Continental Ore Corporation

Paul H. Hirschland
Treasurer

NEW YORK October 29, 1940

M Associated Metals & Minerals Corporation

40 Rector Street, New York City

S 774

CONTINENTAL ORE CORPORATION

500 FIFTH AVENUE

CABLE ADDRESS: LATINORE
CODES: A. B. C. 5TH EDITION, ACME & SUPPLT.

TELEPHONE: LACKAWANNA 4-222

Contract 5000 lbs Gas-Dried Vanadic Acid, October 5, 1940

5.018	lbs Gas-Dried Vanadic Acid	5.018.00 lbs	
	less moisture 1.87%	93.84 lbs	
	Dry net	4.924.16 lbs	
	containing 83.95% V205 = 4.133.83 lbs V205 @ $1.37½ per lb		$5.684.02

Packing: Material is packed in 28 iron drums

Delivery: Ex warehouse New York

Payment: Net cash against Delivery Order on basis of Ledoux's certificates of sampling, weighing & analysis.

Weights: Gross 6396 lbs
Tare 1378 lbs
Net 5018 lbs

Continental Ore Corporation

Paul F. Hirschland
Treasurer

[fol. 566]

NEW YORK, November 19, 1940.

Mercantile Metal & Ore Corp.

8814 67 Broad Street, New York City

CONTINENTAL ORE CORPORATION

500 FIFTH AVENUE

CABLE ADDRESS: LATINORE

CODES: A. B. C. 6TH EDITION, ACME & SUPPLT.

TELEPHONE: LACKAWANNA 4-5220

Contract of September 19, 1940

46 drums	Gas-Dried Vanadic Acid 5.107 lbs less moisture 2.50% 127,675 lbs Dry net 4.979.325 lbs		
	containing 85.13% V205 - 4.238,90 lbs V205 @ per lb V205 contained	$1.22	$5.171.46
	Packing: Material is packed in 46 Iron Drums		
	Delivery: Ex warehouse New York		
	Payment: Net cash against Delivery Order on basis of Ledoux' certificates of sampling, weighing & analysis		
	Weights: Gross 6622 lbs Tare 1515 " Net 5107 "		

NEW YORK, December 6, 1940

Stauffer Chemical Company

8827 636 California St. San Francisco, Calif.

CONTINENTAL ORE CORPORATION

500 FIFTH AVENUE

Your order No 22171

CABLE ADDRESS: LATINORE

CODES: A. B. C. 6TH EDITION, ACME & SUPPLT.

TELEPHONE: LACKAWANNA 4-2220

50	lbs Vanadium Pentoxide containing 84.82% V2O5 = 42.41 lbs at $1.10 per pound of V2O5 contained f.o.b. New York		$46.65

Terms: Net cash 30 days

Delivered to Wells Fargo & Co.
c/o Morgan Line at New York
c/o Southern Pacific Co. at
San Francisco

[fol. 568]

1939-1940

New York, December 19, 1940

Mercantile Metal & Ore Corporation

67 Broad Street New York City

3834

CONTINENTAL ORE CORPORATION

500 FIFTH AVENUE

CABLE ADDRESS: LATINORE
CODES: A. B. C. 6TH EDITION, ACME & SUPPLT.
TELEPHONE: LACKAWANNA 4-2220

Contract of September 1½, 1940

6 drums		Fused Vanadic Acid 2,600 lbs less moisture 0.04% 1.04 Dry net 2598.96 lbs			
		containing 85.56% V2O5 .... 2223,67 lbs V2O5	@	$1.25 per lb	$2.779.59

Packing: Material is packed in 6 iron drums

Delivery: Ex warehouse New York

Payment: Net cash against Delivery order on basis of Ledoux' certificates of sampling, weighing and analysis.

Weights: Gross 2929 lbs
Tare 329 "
Net 2600 "

NEW YORK, July 19, 19 41

Stauffer Chemical Company
636 California Street
San Francisco, Calif.

S1004

CONTINENTAL ORE CORPORATION

500 FIFTH AVENUE

CABLE ADDRESS: LATINORE
CODES: A. B. C. 6TH EDITION, ACME & SUPPLT.

Your order No. 25459
Req. No. A.C.M.
dated June 20, 1941

TELEPHONE: LACKAWANNA 4-2220

43 bags marked Continental Ore 1-43	Air Dried Vanadic Acid: Gross weight..... 2,324 pounds Tare 124 " Net weight 2,200 " Moisture 1.48% 32.56 Net dry weight... 2,167.44 pounds			
	containing 85.74% V205 ... 1,858.35# V205 @ per pound of V205, f.o.b. New York		$1.30	$2,415.87
	½ of Ledoux' charges for sampling, weighing and analysis			18.00
	Dock charges			5.00
				$2,438.87
	Terms: ½% 10 days, 30 days net.			
	Our debit note covering war & marine insurance, for your account, will follow.			

[fol. 570]

[fol. 571]

IN UNITED STATES DISTRICT COURT

DEFENDANT VANADIUM CORPORATION OF AMERICA'S
EXHIBIT NO. V-1-Z

10:30 A.

2-13-42

Continental Ore Corp.,
500 Fifth Ave.,
New York, N.Y.

Cannot see our way to continue production ferro depart-
ment beyond ~~February~~ *March* 10th we are stopping all shipments of ore

LL:HFG.

Italicized material handwritten.

1352

CONTINENTAL ORE CORPORATION
500 FIFTH AVENUE
NEW YORK

AGENTS OF
APEX SMELTING CO
CHICAGO, ILL.
PRODUCERS OF FERRO-ALLOYS

TELEPHONE:
LACKAWANNA 4-2220
CABLE ADDRESS:
LATINORE
CODES:
A. B. C. 6TH EDITION
ACME & SUPPLY

February 16, 1942

Apex Smelting Company
2557 West Taylor Street
Chicago, Illinois

Gentlemen: RE: FERRO DEPARTMENT

It appears that the main reason for your wanting to get rid of the Ferro business is your need of space for another essential war production. However, it seems that you are completely overlooking the fact that Ferro Vanadium is another very essential war item, and that your position in this field has been fully recognized, as you can see from the letter of Mr. Edwin K. Jenckes, Assistant Chief Vanadium Branch, War Production Board, Washington, D. C., dated February 11th.

This letter to you, and a similar letter to us under the same date (Reference 40-EKJ-1540-R), are the direct result of our intervention with Mr. Donald M. Nelson, who referred the matter to Mr. Jenckes for proper attention.

When Mr. Wolf visited you on January 28th, you mentioned that your relations with Mr. Jenckes' office were not at all satisfactory, which also appeared from his remark over the phone that you should hire someone who knows the vanadium business.

All this is now different, and we daresay that this intervention through Mr. Nelson has obviously changed Mr. Jenckes' attitude. Our demarche ended with a major success for Apex Smelting and therefore for us too.

This changed attitude will facilitate our obtaining part of the new output from the new big vanadium plant in Monticello, Utah, and we even foresee that Mr. Jenckes will automatically make such allocations to you.

Whereas there are about 28 or 30 large remelters of aluminum in the country, you will find only:

3 producers of Ferro Vanadium
2 " " Manganese Metal
4 " " Ferro Tungsten

including Apex.

Also, Chicago has a much better strategic position than any other plant making the above materials, in either the Pittsburgh district or Niagara Falls.

You mentioned that you have labor trouble. The fact exists, however, that two other firms are producing the same material. You know yourself that the fumes during the smelting can easily be taken off by a proper fan, and the construction of the long promised baghouse will also help in this respect. The dust from the grinding and mixing operation can be eliminated by performing this operation in a closed apparatus; this should be done not only for health reasons, but also to reduce losses of material. Besides, it is very easy to arrange to have Risley & Wilson and Blanding ship you only ground material, as Shattuck does.

Defendant Vanadium Corporation of America's Exhibit No. V-2-A

[fol. 572]

In United States District Court
Defendant Vanadium Corporation of America's
Exhibit No. V-2-A

572

603

[fol. 573] As for the deficit in the Ferro department, I really thought that you would not bring up this point again, because I considered it completely settled in our last discussion in Chicago on November 1st and 2nd.

The points which disprove this argument are the following:

A. The Ferro department which (according to the contract) should allow the production *of a complete line* of thermit process metals, has never had the necessary equipment. As late as February 28, 1941, when I was in Chicago, you showed me the grinding equipment for the aluminum, which, however, was not completed even at that time.

B. A good part of the losses resulted from the use of the aluminum-tin foil scrap.

C. Must we remind you that your own attitude seriously handicapped the development of the Ferro department? There was a time when you did not let us buy vanadic acid for fear of not selling the Ferro Vanadium; and you did not want to let us sell the Ferro Vanadium for fear of not acquiring the necessary raw material.

D. We told you that we are on the best of terms with Latrobe Electric Steel, and we recommended in March, 1941, that we increase the price of the contract for Ferro Vanadium. However, (see your letter of March 17th), you did not approve. Result: lower earnings.

You have promised us a "new" plant for quite some time. You showed us plans (flow sheets) and mentioned that the new plant would definitely result in a lower production cost. We spoke about this new plant in Chicago on:

February 28, 1941
March 27 and 29, 1941
May 26/27, 1941
August 23/24, 1941
September 24/25, 1941

In consideration of such a new investment, we arrived at an agreement as to a change in the old arrangements, and you expressed your complete satisfaction with our attitude.

Finally, you wanted to make things simpler for yourself, and suggested a new arrangement with the Continental Ore Corporation, replacing the old one with Fredet Kuhlmann with a new one by which the Continental Ore Corporation would have to satisfy all demands of the French partner.

It was also understood that the new investment would entitle you to a quicker amortization. In other words, I really endeavored to be a good sport. I want to remind you, at this point, that on a previous occasion I gave up an arrangement between you and Luxemburg regarding the production of metal powder, and that I also brought about your cooperation with Mr. Leute at a moment when he was on the point of signing up with the U.S. Reduction Company.

I am disregarding the fact here that upon the outbreak of the war in Europe (September, 1939), you had not moved at all according to the contract concluded in July, 1938. I must remind you that if the Ferro department had been ready at that moment we would have been the beneficiaries of export prices of $3.50 and more per pound Vanadium.

[fol. 574] In our last conversation in Chicago on November 1st and 2nd, you urged us to increase the price of Ferro Vanadium to $2.80, and we promised you not to sell any more below that price. On December 19, 1941, we informed you of the conclusion of the contract with Latrobe, and you acknowledged receipt of our letter by yours of December 22nd (this is in answer to your letter of February 10th, in which you mention that you have not authorized or accepted any contract from the Latrobe Electric Steel Company).

The cessation of the Ferro production would be a slap in the face to Latrobe, for instance, and we must remind you that Mr. Zenk of Latrobe made several interventions with Mr. Jenckes' office, and particularly praised the quality of your material. Latrope is one of the biggest users of Vanadium in the country. They are excellent customers, not only now, but in peace time as well, and they will not

hesitate a moment to introduce us to other steel mills the moment we have sufficient material available.

You know yourself that wherever your Vanadium 70-80% has been shipped, we received new orders. Of course it is important to maintain contacts with the customers just now, during the emergency, if we expect them to give us orders in normal times.

Now, during the biggest battle of production which the U.S. has ever passed through, is the proper moment to build up new business, and every shipment today means preparation for peace time business. Even if we had no contract at all with your firm, you could not let us down just now, thereby wasting all the honest and successful efforts we have made over a period of more than 3 years. It is not our fault that you treated the Ferro department as a stepchild from the very beginning. If your set-up for the Ferro department were as modern as it is for the aluminum department, we could have already been in the production of Manganese Metal, for instance. You know that we suggested trials to you in the beginning of last year, when we also suggested the production of Ferro Columbium.

The moment you have organized an adequate Ferro department, we will have enough business on hand, even without a pound of vanadic acid, viz. tungsten, manganese metal, which can be produced in quantities of 100,000 pounds a month and even more.

However, everything is now much easier for you because of the intervention of Mr. Nelson in favor of the maintenance of the Apex Smelting Company as producers of Ferro Vanadium, whereby he clearly showed that he does not want to have a vanadium monopoly exercised by the two big producers.

This was one of our arguments in contacting Mr. Nelson, and as you see, he agreed completely.

If your other intended production does not leave any space at all for the Ferro department, then you should be able to find such space outside of your present plant.

[fol. 575] We daresay that the maintenance (and the ultimate growth of your Ferro department) will be a substantial contribution to your standing in Washington, particularly as you are the only aluminum remelter among so many others who had sufficient vision to go into the production of Ferro Alloys by the alumino-thermic process, thereby adding to the production of most essential war products.

The Thermit department in the Apex Smelting Company, if properly conducted, will help you come to good terms with firms like:

Electromet
Vanadium Corporation
Climax Molybdenum
Molybdenum Corporation

all consumers of granulated aluminum. You know that we do not exaggerate. We are convinced that you can get all their orders for aluminum powder one day, when you are again interested in it, over competition from the National Smelting Company, which today has practically a monopoly in this grade.

You mentioned to Mr. Wolf that a new properly equipped Ferro department would mean an expenditure of about $60,000.

In order to show you our spirit of cooperation, we should like to suggest that the present arrangements be changed to the effect that you retain 75% of the profit, therefore assigning only 25% to the French partner and ourselves. (The exclusive sales rights on the basis of a commission of 2½% would be reserved to us as heretofore).

However, if you don't accept even this gesture, and you think you must separate yourself from us just at this moment, thus wasting all the work we have done for years, we are ready to discuss this with you. In other words, we are ready to discuss the terms and conditions under which the present arrangements may be cancelled, but we can do so only if the conditions are reasonable enough to be ac-

cepted by our French partner also, which means first of all that no sudden shut-down can be allowed, and that you must promise us to continue the department in good faith for at least another six months, and abstain from any steps which would be detrimental to our French partner and ourselves.

Very truly yours,

CONTINENTAL ORE CORPORATION

/s/ H. J. LEIB
Henry J. Leir

hjl/rk

cc Mr. Singer
Washington, D. C.

[fol. 576]

DEFENDANT VANADIUM CORPORATION OF AMERICA'S EXHIBIT NO. V-2-F

April 8, 1942

Continental Ore Corporation
500 Fifth Avenue
New York City, N. Y.

Att: Mr. Henry J. Leir

Gentlemen:

We have your letter of April 7th and we would like to hold this equipment to one side for you; but unfortunately, space is what we really need at the moment. And in addition to this the present market is a very attractive market to dispose of the equipment.

Jaw Crushers and flat cars particularly take up a lot of room, and you can understand that it would be best to dispose of this material rather than putting it somewhere where it would rust away; and therefore, unless you can see the possibilities of using this, we will make attempts to dispose of it.

Very truly yours,

APEX SMELTING CO.

L. Lippa

L

[fol. 577]

CONTINENTAL ORE CORPORATION
500 FIFTH AVENUE
NEW YORK

[Stamp—Received—Apex Smelting Co.—Oct. 1, 1942—8:00 A.M.]

September 30, 1942

Apex Smelting Co.
2537 W. Taylor Street
Chicago, Ill.

Re: Jaw Crusher

Gentlemen:

We thank you very much for your wire regarding the jaw crusher and have offered it by airmail to our friends in New Mexico.

We urged them to let us have their decision by Friday but there might be a delay until Saturday if the men are away at the mine.

In any case, we will endeavor to give you a reply by Saturday noon and hope you can keep this matter open for us until then.

Thanking you again, we are

Very truly yours,

CONTINENTAL ORE CORPORATION

/s/ H. J. LEIR
President

Henry J. Leir
rl

[fol. 578]

CONTINENTAL ORE CORPORATION

[Stamp—Received—Apex Smelting Co.—Apr. 8, 1942—8:30 A.M.]

DATE 4/7/42

TO: Apex Smelting Company

SUBJECT Ferro Department

Attention: Mr. L. Lippa

We thank you for your letter of April 6th.

Right at the moment, we are unable to tell you whether we will have use for this equipment. We are negotiating with a party that may be interested in going into this business, but our talks are progressing rather slowly.

We think that for the time being, the best thing would be for you to keep this property in storage in a corner of your plant.

The moment Ferro Vanadium can be exported again, the equipment will become more valuable, because it will be very interesting to produce Ferro Vanadium even on a smaller scale, because of the margin of $1.00 between the domestic and export price, which margin is in favor of the producer.

Please let us know what you are going to do with this equipment.

CONTINENTAL ORE CORPORATION

/S/ H. J. LEIR

Henry J. Leir/lm

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AUG 11 1961
JOHN R. BROWNING, Clerk

In the Supreme Court
OF THE
United States

OCTOBER TERM, 1961

No. 304

CONTINENTAL ORE COMPANY, a Partnership; and HENRY J. LEIR, ERNA D. LEIR, LINA SCHLOSS, as Individuals and as Partners under the trade name and style of Continental Ore Company,

Petitioners,

vs.

UNION CARBIDE AND CARBON CORPORATION; UNITED STATES VANADIUM CORPORATION; ELECTRO METALLURGICAL SALES CORPORATION; ELECTRO METALLURGICAL COMPANY OF CANADA, LIMITED; VANADIUM CORPORATION OF AMERICA,

Respondents.

PETITION FOR A WRIT OF CERTIORARI to the United States Court of Appeals for the Ninth Circuit

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In the Supreme Court
OF THE
United States

OCTOBER TERM, 1961

No.

CONTINENTAL ORE COMPANY, a Partnership; and HENRY J. LEIR, ERNA D. LEIR, LINA SCHLOSS, as Individuals and as Partners under the trade name and style of Continental Ore Company,

Petitioners,

vs.

UNION CARBIDE AND CARBON CORPORATION; UNITED STATES VANADIUM CORPORATION; ELECTRO METALLURGICAL SALES CORPORATION; ELECTRO METALLURGICAL COMPANY OF CANADA, LIMITED; VANADIUM CORPORATION OF AMERICA,

Respondents.

PETITION FOR A WRIT OF CERTIORARI to the United States Court of Appeals for the Ninth Circuit

Petitioners pray that a Writ of Certiorari issue to review the judgment of the United States Court of Ap-

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peals for the Ninth Circuit entered in the above-entitled case on March 22, 1961.

CITATIONS TO OPINIONS BELOW

The opinion of the United States Court of Appeals for the Ninth Circuit is reported in 289 F.2d 86 (1961). A copy of the opinion is attached hereto as Appendix A. No opinions were issued by the District Court.

JURISDICTION

The judgment of the United States Court of Appeals for the Ninth Circuit was entered on March 22, 1961. (Tr. 2583, Appendix B.) Petitioners filed a Petition for Rehearing on April 21, 1961, which was denied on May 15, 1961. (Tr. 2584, Appendix C.) The jurisdiction of this Court is invoked under 28 U.S.C., Section 1254(1).

QUESTIONS PRESENTED

1. Whether the Court of Appeals for the Ninth Circuit, having been reversed successively on *Radovich v. National Football League*, 352 U.S. 445 (1957); *Klor's, Inc. v. Broadway-Hale Stores, Inc.*, 359 U.S. 207 (1959); and *Beacon Theatres, Inc. v. Westover*, 359 U.S. 500 (1959), can nullify those decisions of this Court in as obvious a manner as has been done here?

2. Whether an Appellate Court can take away from a jury the question of causal effect concerning an injury by

a 100% two-company monopoly (admittedly achieved pursuant to an intent to monopolize) when the question of violation is confessed and the issue of measurement of damages is more than sufficiently supported by relevant economic data and where the destruction of the plaintiff company (petitioners herein) was admitted to be, by a chief executive officer of a defendant, an important goal of the monopolists?

3. Whether this Court can tolerate a decision to stand involving an admitted refusal of the trial Court to follow this Court's opinion in *Bigelow v. RKO Radio Pictures*, 327 U.S. 251 (1946) on the ground that "somebody has to start reversing the Supreme Court." (This statement was actually and seriously made by the trial Court.) The Court of Appeals side-stepped this issue, but went on to give an interpretation of the *Bigelow* case about which it acknowledged it was "not sure", thus compounding the trial Court's admitted refusal to apply *Bigelow* with its own misconstruction.

4. Whether this Court's decision in *Bigelow v. RKO Radio Pictures*, 327 U.S. 251 (1946) is applicable only to cases wherein the complaint is of a "general loss inflicted by the defection of countless, individual customers" or whether it is also applicable to a case, such as the instant case, wherein plaintiffs proved an inability to succeed in a monopoly market and a resultant loss of specific business arrangements and all necessary sources of supply and customers? The Ninth Circuit stated it was "not sure". (Opinion, Appendix A, page 11.)

5. Whether petitioners, an American company, can claim damages under the anti-trust laws for injury caused

by their elimination from the Canadian market when it is shown that two other American companies had entered into a conspiracy to eliminate all competition and to monopolize the industry and when it is shown that as part of this conspiracy one of the American companies utilized its domination and control over a wholly owned Canadian subsidiary, which had been given a discretionary power by the Canadian government to allocate the importation of vanadium into Canada during the war, to exclude the exports of petitioners (competitors) from entering Canada for sale to petitioners' Canadian customers and when it is shown that the refusal of the Canadian subsidiary to allocate vanadium to petitioners' Canadian customers was directed by its American parent company pursuant to the overall conspiracy to eliminate all competition and specifically to eliminate petitioners. This issue was erroneously decided against petitioners on the Court of Appeals' manifest misapplication of this Court's recent opinion in *Eastern Railroad Pres. Conf. v. Noerr Motor Frgt., Inc.* (1961) 365 U.S. 127, 81 S.Ct. 523.

6. Whether petitioners, against whom a directed verdict was ordered by the Appellate Court, were deprived of a trial by jury by the Appellate Court below which weighed the evidence, made factual rulings on the sufficiency of evidence of causation, did not view the evidence as a whole, did not allow petitioners the benefit of all their evidence, did not allow petitioners the benefit of all inferences and presumptions to be drawn from the evidence and did not resolve all conflicts in the evidence in favor of petitioners in direct conflict with this Court's opinion in *Beacon Theatres, Inc. v. Westover*, 359 U.S. 500 (1959).

7. Whether the Seventh Amendment to the United States Constitution prevents a Federal Appellate Court from reviewing the facts determinable by a jury when the trial Court permitted the case to be submitted to the jury and the factual question of the sufficiency of the evidence on the question of causation was not raised by appeal or by a cross-appeal and when there has been no compliance with Rule 50(b) of the Federal Rules of Civil Procedure by the party seeking to have the Appellate Court review the sufficiency of the evidence to support a finding?

STATUTES INVOLVED

The statutes involved are Sections 1 and 2 of the Sherman Act, 15 U.S.C. 1, 2; Section 4 of the Clayton Act, 15 U.S.C. 15, and 28 U.S.C., section 2072, Fed. Rules of Civ. Proc. 50(b). The constitutional provision involved is the Seventh Amendment of the Constitution of the United States. These are printed and attached to this Petition as Appendix D.

STATEMENT OF THE CASE

A. Summary Statement

This was an action filed by petitioners to recover treble damages under the Sherman Act. Petitioners were distributors and agents in the alloy metals business. The complaint alleges that respondents conspired to monopolize and did monopolize the vanadium industry and that, as a result of these violations of the anti-trust laws, petitioners were eliminated from the vanadium industry. Peti-

tioners claimed they could not continue to operate profitably because of the dominant position respondents had acquired in the industry as a result of their monopolization of raw materials, their joint refusal to sell supplies to petitioners for processing in their own plants or to manufacturing associates with whom petitioners had made manufacturing arrangements, their intentional elimination of petitioners from the Canadian market pursuant to the conspiracy between respondents, and their threats of commercial reprisals to manufacturing associates of petitioners for persisting in the industry. (Complaint, Par. 39, Tr. 21.)

The complaint was filed on July 15, 1949. (Tr. 3-25.) The trial by jury commenced on June 2, 1958. On June 24, 1958 the jury returned a verdict in favor of respondents. (Tr. 104.) Judgment was entered on the verdict. (Tr. 104-105.)

After entry of judgment, neither of the parties moved for any type of ruling under the provisions of Rule 50(b) of the Federal Rules of Civil Procedure.

Petitioners duly appealed to the United States Court of Appeals for the Ninth Circuit. Petitioners' Statement of Points on Appeal appears at page 2058 of the transcript. Neither party designated the complete record. (Tr. 2064-2068.) For example, respondents' motions for dismissal at the close of petitioners' case are not printed (Tr. 1271, 1989) but the motions for a directed verdict are reported (Tr. 1989).

In their specifications of error, petitioners complained to the Court of Appeals that, during the trial, petitioners sustained prejudicial hostility to their lawsuit and to the

Sherman Act in general and that the trial Court made repeated rulings on the law and the evidence manifestly erroneous and prejudicial to them.[1]

Respondents did not cross-appeal.

In its opinion, the Court of Appeals for the Ninth Circuit held as a *matter of law* that even assuming that petitioners had proved a conspiracy to monopolize the vanadium industry resulting in a 100% control of the manufacture of ferrovanadium and a 90% to 95% control of the manufacture of vanadium oxide by respondents, and had proved their [petitioners'] inability to successfully maintain themselves in the vanadium industry, the trial Court erred in submitting the case to the jury because petitioners had not proved causation. The Court below based this holding on its conclusion that petitioners had not proved that respondents eliminated all petitioners' sources of supply and had not proved an absolute and unqualified inability to obtain vanadium oxide from respondents. (Opinion, Appendix A.) The Court below made this ruling in the face of confessions by top executive officers of respondents that respondents had as their goal the elimination of all competition in general (Tr. 208-209), and the elimination of petitioners in particular (Tr. 546-547, 222-226, 611).[2]

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[1]The errors raised on appeal by petitioners are set forth at Appendix F to this Petition.

[2]In this respect, it is to be noted that actions were brought by independent miners and millers in the District Court of the State of Utah, based on the same conspiracy involved herein. In those cases, a jury found against respondents and assessed damages on behalf of plaintiffs. There the trial Court admitted the evidence as to conspiracy rejected by the trial Court in the instant case. These cases are presently before the United States Court of Appeals for the Tenth Circuit.

In so ruling, we respectfully submit that the Court below deprived petitioners of their rights under Section 4 of the Clayton Act and the Seventh Amendment to the United States Constitution.

In order to state the facts necessary to show the more than abundant evidence which precluded the result reached by the Court below and the serious errors which the Court below refused to face, it will be necessary to state the facts in some detail.

B. Rulings of the Trial Court

The complaint filed herein alleged a conspiracy by respondents to monopolize the vanadium industry, monopolization of the vanadium industry and the elimination of petitioners from the vanadium industry. (Tr. 16.) The complaint alleged that this conspiracy was formed in 1933, continued up to the date of the filing of the complaint and was the cause of the petitioners' elimination from the vanadium industry. (Tr. 13, 16-24.) The complaint specifically alleged that respondents intended to eliminate all independent producers and distributors of ferrovanadium and vanadium oxide from the vanadium industry and that petitioners were one of the companies eliminated as a result of this conspiracy and monopolization. (Par. 30, Tr. 16; Par. 45, Tr. 23-24.)

During the trial, the trial Court did the following:

(a) Rejected as inadmissible all evidence and testimony offered by the petitioners to show the terms, origin, nature, purpose and scope of the conspiracy and combination of the respondents from 1933, the year in which petitioners alleged the conspiracy was formed, to 1938

on the grounds that petitioners entered this country in 1938. (Tr. 112-113, 118-119; Offer of Proof, Tr. 308-327; 422-434; 151-152, 194; 256-268; 601-603; 1985-1986.)

(b) Rejected all evidence pertaining to the suppression of petitioners' Canadian business by respondents as part of the conspiracy and the exclusion of petitioners from Canadian Markets (Tr. 801-808; 831-838; Offer of Proof, Tr. 801-840);

(c) Rejected as inadmissible evidence that respondent Union Carbide informed petitioners that they had no business in the vanadium industry, threatened petitioners to stay away from Climax Molybdenum Co., a manufacturing associate of petitioner which produced petitioners' product, or reprisals would be taken against Climax (Tr. 813-818; 826-834; 845-851; 1008-1012);

(d) Excluded evidence offered by petitioners as to their overall business success and their ability to succeed in other allied fields of ores, minerals and alloys (Pls.' Ex. 121 for Id., Tr. 1083-1088; Pls.' Ex. 123 for Id., Tr. 1096-1097; Pls.' Ex. 124 for Id., Tr. 1097-1103; Pls.' Ex. 125 for Id., Tr. 1103-1106; Pls. 126 for Id., Tr. 1106-1107; Pls.' Exs. 139-141 for Id., Tr. 1261-1266);

(e) Persistently told the jury that activities in prima facie violation of the antitrust laws were "good business judgment", a "good proposition", and not "improper". (Tr. 209, 245, 246, 558, 561, 586.) In effect, these statements amounted to an instruction to the jury that good business judgment was an absolute defense to Sherman Act violations. (Tr. 1909-1910; 245, 246, 255, 256, 561, 563, 586, 611, 869, 1647, 1709, 1833.) This error was magnified in the instructions when the Court instructed the jury that

". . . You cannot find that the defendants entered into an unlawful agreement or conspiracy because you disagree with their business judgment." (Tr. 2029.) The trial Court failed to qualify its instructions on individual business judgment (Tr. 2028-2029);

(f) Instructed the jury on the public injury doctrine specifically rejected by this Court in *Klor's Inc. v. Broadway-Hale Stores, Inc.*, 359 U.S. 207 (1959); *Radiant Burners, Inc. v. Peoples Gas Light and Coke Co.*, 364 U.S. 656, 81 S. Ct. 365 (1961). (Tr. 2035-2036.) In fact, the "public injury" instruction offered by respondents and given by the trial court specifically cited the Ninth Circuit *Klor's* decision which this Court unanimously overruled;

(g) Erroneously instructed the jury that any acts of the respondents as agents of the Government, American or Canadian, could not be considered by the jury as part of the illegal agreement, plan or monopolization herein involved (Tr. 2033);

(h) Required petitioners to prove damages to a reasonable certainty and to prove that, but for the conspiracy, petitioners would have had vanadium products to sell and would have sold them at a profit. (Tr. 2032.) In so doing the trial Court in complete seriousness stated "But somebody has to start reversing the Supreme Court." (Tr. 2011.)[3]

[3]Mr. Alioto. I would suggest this, if your Honor please; it has been done in other cases, and we have done it pretty usually in our proposed instructions: Just take that instruction from the *Bigelow* case and give it directly and verbatim. No one can object to the language of Justice Stone . . . . The Court: Yes. But somebody has to start reversing the Supreme Court. (Tr. 2011.)

(i) Refused to instruct the jury that a conspiracy to refuse to deal was per se illegal (Tr. 2031);

(j) Repeatedly questioned the materiality and import of petitioners' evidence (Tr. 221, 249, 325, 599, 751, 753, 1323, 1324, 1581, 1603, 1621, 1644, 1646, 1656, 1801, 1909-1911, 1924, 1979, 1984), and, to petitioners' prejudice, continuously minimized and questioned the weight and credibility of petitioners' evidence and witnesses. (Tr. 560, 561, 1413-1414, 1422, 1581, 1804, 1904, 1910, 1962-1963.) By its unwarranted interference in these respects, the trial Court prevented petitioners from making a full, orderly and fair presentation of their case, and gave the jury an impression that their decision should be for respondents.

(k) Permitted counsel for respondent VCA to inform the jury in his opening statement that these same respondents had been acquitted in a prior government suit based on these same facts. (Tr. 111.)

On two separate occasions during the trial, respondents moved for a dismissal and a directed verdict on the grounds of insufficiency of the evidence. (Tr. 1989.) The first of these motions was made after petitioners had presented their case. The motions were renewed after respondents rested. The motions for dismissal and directed verdict were not printed in the record; however, reference is made to them at page 1989 of the Transcript. The trial Court reserved its rulings on these motions on both occasions and, without ruling on them at any time, submitted the case to the jury, which returned a verdict in favor of respondents.

C. Evidence on the Issue of Causation

1. Monopoly Control of the Vanadium Industry

The business of milling, manufacturing and selling vanadium products[4] was completely controlled and dominated by respondents, the Union Carbide and Carbon Corporation, (herein called Union Carbide), its divisions or subsidiaries, and the Vanadium Corporation of America (herein called VCA). The Union Carbide divisions or subsidiaries involved in this case were the United States Vanadium Corporation, (herein called USV); Electro Metallurgical Company, (herein called Electromet); Electro Metallurgical Sales Corporation, (herein called Electromet Sales); Electro Metallurgical Company of Canada, Ltd., (herein called Electromet of Canada). All

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[4]Vanadium is a rare metallic element found in the United States on the Colorado Plateau, a geographical unit formed by the western part of Colorado, the eastern part of Utah and the northern parts of New Mexico and Arizona. The vanadium-bearing ore is first mined, then converted into vanadium oxide at mill sites located near the ore deposits. These mills crush, roast and leach the ore to produce a substance known as "red cake". This red cake is then fused into a black oxide, which is interchangeably called vanadium oxide, vanadic acid, vanadium pentoxide or V_2O_5. (Tr. 166-169.) This oxide is then converted into ferrovanadium, a ferro-alloy, through the application of great heat either by means of an electric furnace or by an alumino-thermic process. Respondents utilized the electric furnace process of conversion. (Tr. 170-171, 1827-1828.) Petitioners utilized the alumino-thermic process, a process which is much cheaper and does not require large and expensive investments in electric furnaces. (Id., Tr. 841-842.)

The vanadium oxide produced at the mill sites on the Colorado Plateau is shipped to electric furnace plants, located in the East, for conversion to ferrovanadium. (Pls.' Ex. 6, Tr. 2069-2072.)

The major customers for vanadium products are the steel companies, which use the ferrovanadium in the steel bath to add toughness and tensile and torsional strength to the steel. (Tr. 1523-1529.) Vanadium steels are used in the manufacture of high speed tools, machine and automobile parts, and in armor plate. (Id.)

the above mentioned companies except VCA are either divisions or wholly owned subsidiaries of Union Carbide. VCA is an independent corporation.

Except for the competition offered by petitioners during their existence, at all times mentioned herein, VCA and Union Carbide maintained a 100% control of the manufacture and sale of ferrovanadium (Pls.' Ex. 138, Tr. 1938-1947; 1402-1403; 1843-1844), and more than a 90% control of the manufacture and sale of vanadium oxide (Pls.' Exs. 136-137, Tr. 1938-1945; 1844-1845). USV alone produced and sold more than 77.2% of the vanadium oxide manufactured and sold in the United States. (Id.) VCA produced 64.7% of the total production of ferrovanadium. (Pls.' Ex. 138, Tr. 1938-1947.)

By 1940, USV alone held more than a 90% control of all easily accessible ore bodies on the Colorado Plateau. (Tr. 506.)

2. The Parties

(a) Union Carbide

Union Carbide is a New York corporation which holds ownership of corporations engaged in the manufacture, distribution and sale of ferro-alloys. (Tr. 153, 164-166.)[5] USV is the wholly owned Union Carbide subsidiary which was engaged in the business of mining and milling vanadium ores on the Colorado Plateau. (Tr. 27, Pls.' Ex. 6, Tr. 2071.)

In Canada, Union Carbide wholly owned the Electro Metallurgical Company of Canada, Ltd., a corporation

[5]The Union Carbide divisions or subsidiaries involved herein are set forth in Section C1 of this Petition at pages 12 and 13.

organized and existing under the laws of Canada. (Tr. 27-28, 819-820.) Union Carbide sold vanadium products in Canada through this Canadian subsidiary.

Union Carbide or its subsidiaries were the only major domestic producers of vanadium oxide on the Colorado Plateau until about 1940. (Pls.' Ex. 18, Tr. 124-127.) In 1927, Union Carbide had acquired the properties of the United States Vanadium Corporation, located at Rifle Colorado and entered the vanadium business. (Pls.' Ex. 6, Tr. 2070.) In 1936, it erected a mill at Uravan, Colorado. (Id.) From 1942 to January, 1944, it operated the vanadium mill at Durango, Colorado, as agent for the Metals Reserve Company, a governmental agency which appointed USV its agent for the war time procurement of vanadium. (Df. U's Ex. B, Tr. 2358; Tr. 368-381.) USV acquired the Durango mill from the United States Government in July 31, 1944, and operated it until June 2, 1948. (Pls.' Ex. 6, Tr. 2071.) In 1942, USV also erected another mill at Rifle, Colorado. (Tr. 2070.)

(b) Vanadium Corporation of America

From 1927 to 1940, VCA's principal source of vanadium bearing ores was a Peruvian mine where it also operated a mill. (Tr. 2072.) In 1932, VCA acquired the assets of the Rare Metals Corporation for $428,000. (Tr. 2069-2070.) These assets included a vanadium mill located at Naturita, Colorado. (Tr. 2069-2070.) Although it acquired the Naturita mill in 1932, the mill was not rehabilitated until 1939 and was not put into active operation until the middle of 1940. (Tr. 1827, 2070.) From 1932 to 1940 VCA relied on USV for its domestic source of vana-

dium oxide. (Pls.' Ex. 8, Tr. 2074, Pls.' Exs. 43, 44, 45, Tr. 2122-2126.)

From September, 1942, until February 29, 1944, VCA operated a mill located at Monticello, Utah, for the Defense Plant Corporation. This Monticello plant was erected and planned by VCA officials at government expense. (Tr. 1836.) VCA leased the plant during 1945 and the spring of 1946. (Tr. 2072.) In 1948, VCA acquired the Durango Mill. (Tr. 1827, 2072.)

During the periods in question, respondents milled millions of pounds of vanadium oxide, which constituted more than 90% of the total domestic production. From this oxide respondents produced millions of pounds of ferrovanadium per year. Except for petitioners' challenge to this monopoly, this production constituted 100% of the total domestic production of ferrovanadium. (Pls.' Exs. 1, 2, 3, 18, Tr. 113, 114, 127.)

(c) Petitioners

Petitioners were a family partnership and successors to the Continental Ore Corporation, hereinafter called Continental. Mr. Henry J. Leir was "the guiding light" in Continental in 1938. He came to this country from Europe in 1938 and brought with him an extensive and practical knowledge, background and experience in ores, metals, and alloys. (Tr. 1034-1047.) Mr. Leir had an extensive background in Europe in the vanadium industry, having successfully developed the inexpensive alumino-thermic process of converting oxide to ferrovanadium. (Tr. 1043, 1063.)

After his arrival in this country, Mr. Leir challenged respondents' monopoly position by attempting to enter the vanadium industry. He contacted the Apex Smelting Company of Chicago, Illinois, a maker of aluminum, hereinafter referred to as "Apex" and entered into an agreement with Apex whereby Apex would produce ferrovanadium for petitioners and petitioners would be the agents for Apex, procure the supplies of vanadium oxide necessary to permit Apex to manufacture ferrovanadium and then sell the finished Apex ferrovanadium production. (Tr. 1059; Pls.' Ex. 117, Tr. 2187-2189.)

Apex commenced producing ferrovanadium in August or September, 1940, and continued to produce ferrovanadium until October, 1941. (Tr. 1062.) A fire suspended operations for a time (Tr. 1154), but in January 27, 1942, Apex notified Mr. Leir that Apex was terminating its contract with petitioners (Df. V's Exs. I-Y, Tr. 1173-1175). Apex terminated production in July, 1942. (Pls.' Ex. 122, Tr. 2218-2220.)

Thereafter, petitioners installed a grinder and mixer in a warehouse located on Long Island, New York, and from 1942 to 1944 they attempted to distribute their product Van-Ex, a product which they had developed at lower cost and which could be used in place of ferrovanadium. (Tr. 840-845, 860; see Pls.' Ex. 119, Tr. 2212; Tr. 989.)

On February 10, 1943, petitioners and the Climax Molybdenum Corporation of Langeloth, Pennsylvania, hereinafter referred to as "Climax", entered into a contract for the conversion of 20,000 pounds of vanadium oxide into ferrovanadium. (Pls.' Ex. 111, Tr. 1016-1018;

and see Tr. 942-961.) Climax terminated the arrangement when it was threatened with commercial reprisals if it persisted in the industry by respondent Union Carbide. (Tr. 829.)

In the Spring of 1944, petitioners and the Imperial Paper and Color Corporation, hereinafter referred to as "Imperial", entered into a contract whereby Imperial agreed to process ferrovanadium and vanadium oxide for petitioners and petitioners undertook to secure the necessary raw materials for Imperial and to act as its sales agent for Imperial's entire output. (Pls.' Ex. 110, Tr. 2175-2178.) Imperial was compelled to abandon this arrangement because of its inability to secure adequate vanadium supplies. (Pls.' Exs. 114, 115, Tr. 1022-1024, 2179-2182.)

As part of their vanadium business, petitioners had developed an extensive foreign business with a large Canadian steel mill, the Atlas Steels Limited. In 1942, petitioners shipped Van-Ex to them from their Long Island plant. (Tr. 802.) At the trial petitioners offered to prove that in 1943 they were prevented from shipping to their Canadian customers and the Canadian market by Electromet of Canada, Union Carbide's wholly owned Canadian subsidiary, pursuant to the basic conspiracy to eliminate petitioners and all other competitors but VCA from the vanadium industry. (Pls.' Exs. for Id. 80-108, Tr. 801-840; Testimony of Mr. Wolf, Tr. 813-817; 832-834; 845-851; 1008-1012.) This evidence was excluded by the trial Court. (Tr. 801-851.)

By the end of 1945, petitioners were no longer in the vanadium industry. Petitioners' billings and sales are

shown in Pls.' Exs. 119, 120. (Tr. 2212-2213.) In 1941 and 1942 alone, petitioners sold over $200,000 in vanadium products. (Tr. 2212.)

Mr. Leir was exceptionally successful in all the other fields of ores, alloys and minerals. (Pls.' Exs. 123-126 for Id., Tr. 1097-1114.) The only field of endeavor in which he was not able to become established and to succeed was the vanadium business. (Tr. 971-980, 1097-1114, 2212.) From this business he was totally excluded. Only extensive and exhaustive efforts on the part of petitioners allowed them to remain in the vanadium industry from 1938 to 1945. (Id.) However, by 1945, respondents' conspiracy to monopolize the vanadium industry and eliminate all competition had succeeded in eliminating petitioners from the market place.

D. Proved Violations of the Sherman Act

1. Direct Evidence Was Introduced at the Trial That Respondents Had as Their Purpose and Intent the Exclusion of All Independent and Potential Sources of Supply for Petitioners

There was uncontradicted direct evidence introduced at the trial that respondents conspired to monopolize the production of vanadium products and specifically intended to eliminate petitioners from the vanadium industry. Mr. Blair Burwell, a Vice President of USV and a member of its Board of Directors (Tr. 135-138) gave direct testimony that he was specifically instructed by his superiors to acquire all properties on the Colorado Plateau that could possibly produce vanadium in competition with USV in order to keep them off the American market. (Tr. 209.) Seldom, if ever, has there been a confession of such

flagrant antitrust violations by an executive of an offending company. Mr. Burwell gave the following testimony:

"Q. State whether or not there was, in September of 1938, a communication from any superior of yours in the United States Vanadium Corporation or Union Carbide with respect to a policy on competitive activities on the Colorado Plateau.

A. Yes, there was.

Q. Was this an oral or a written communication to you?

A. Oral.

Q. And who gave you that oral communication?

A. Mr. Van Fleet.

Q. What was the policy as communicated to you?

A. Well, I was—my instructions were to acquire all the properties on the Colorado Plateau that would possibly produce vanadium in competition with the United States Vanadium Corporation.

Q. To acquire them for what reason?

A. To keep them off the market as producers of vanadium.

Q. What market?

A. The American market."

(Burwell, Tr. 208-209.)

Burwell gave detailed direct testimony as to USV's acquisition or elimination of all independent sources of vanadium oxide to which petitioners could look or depend upon for their raw materials. The independent sources of supply which were specifically eliminated by respondents to keep them out of the American market were:

(a) *Anaconda Copper Company:* USV purchased its production of approximately 100,000 pounds of V_2O_5 per year. (Tr. 206-207.) Burwell testified USV did not need

this oxide at this time (September, 1938), but that USV purchased the Anaconda production only to "keep it off the market", "the American market". (Tr. 207.)

(b) *Gateway Alloys:* These mines were unnecessarily and brutally stripped of easily accessible ore by USV because "we wanted to keep another vanadium operation from getting started". (Tr. 292-293.)

(c) *Mesa Vanadium Mill:* The entire mill was acquired by USV "to keep it out of production". (Tr. 303.) USV did not need a mill at this time. (Tr. 303.)

(d) *Loma Mill:* Prior to the time this independent mill was opened, USV was not purchasing ore in the area of the Loma Mill. After the mill was opened as an independent mill, USV started an ore buying station near the mill to keep the ore "away from this mill". (Tr. 303-306.) The mill closed for lack of ore. (Tr. 306.) This ore was hauled a distance of 150 miles to keep it away from independents. (Tr. 306.)

(e) *The Durango Mill:* This mill was acquired by USV in 1944 because "we wanted to keep control of the production of vanadium" (Tr. 246-247) and because some independents were trying to buy it (Tr. 242). USV feared these independent producers would use this mill to start an independent production of oxide in competition with USV. (Pls.' Ex. 38, Tr. 244, 2119.)

(f) *Nisley & Wilson Mill:* Mr. Nisley, one of the owners of the mill, testified that Burwell actually took miners off his scales and offered them premium prices to haul their ore a great distance to USV's mill at Uravan. (Tr. 655-656.) The mill closed. (Tr. 658-663.) After Nisley was caused to close his mill he sought MRC aid and was

referred to Burwell, USV agent for MRC, who told him that the only condition under which Nisley would be supplied ore purchased by MRC for the government account was that the oxide produced from the ore be returned to USV. (Tr. 660-663.) USV, as agent for MRC, subsequently terminated its contract with Nisley sooner than it terminated its contract with VCA. (Tr. 666.)

Mr. Burwell also testified that there was an agreement between Union Carbide and VCA which required Electromet to follow VCA prices against the business judgment of officers of USV. (Tr. 145-157, 193-194, 229-241.)

Respondents' letters and correspondence showed the most intimate collaboration between respondents. For example in November, 1938, Electromet Sales sold VCA 130,000 pounds of vanadium oxide at 80¢ a pound, which was 30¢ below respondents' identical contract prices of $1.10. (Pls. Exs. 4, 10, Tr. 114, 119-120.) And as a result of the so-called "Maggie C." Agreement entered into between Union Carbide and VCA, USV mined ore from claims owned by VCA, milled these ores into vanadium oxide at its own mills at the price of 65¢ per pound in 1939 and 75¢ per pound during 1940 for delivery to VCA. (Pls.' Ex. 8, Tr. 2074; Pls.' Exs. 43, 44, 45, Tr. 279-280, 2122-2126.) Under this arrangement, during 1939 and 1940, 717,848 pounds of vanadium oxide were delivered by USV to its "competitor" VCA. (Pls.' Ex. 149, Tr. 1573, 2305.)

On September 26, 1941, respondents entered the "Dry Valley Agreement". (Pls.' Ex. 46, Tr. 2128-2133.) Under this agreement, USV deeded valuable Dry Valley claims to its "competitor" VCA. (Id.)

Burwell also testified that he and Mr. Bransome, President of VCA, fixed ore prices (Tr. 211-218, 496-500) and that Union Carbide and VCA had customer division arrangements whereby customers were allocated between USV and VCA (Tr. 248-256).

Mr. Burwell's testimony on the policy of excluding all existing and potential competition to Union Carbide and VCA was corroborated by the contemporaneous documents. (Pls.' Ex. 33, Tr. 174-177; Pls.' Ex. 34, Tr. 199-206; Pls.' Ex. 35, Tr. 219, 2114; Pls.' Ex. 36, Tr. 228; Pls.' Ex. 37, Tr. 243; Pls.' Ex. 64, Tr. 2147.)

The trial Court excluded *all* correspondence and inter-office memoranda between the respondents, dated 1933 to 1938, which would have established conclusively the terms, origin, nature and purpose of the conspiracy agreement between respondents for the joint control of the vanadium industry. (Offer of Proof, Tr. 422-433; Pls.' Ex. for Id. 25, Tr. 118-119, 134; Pls.' Ex. 47, Tr. 308-316; Pls.' Exs. 48-54,[6] Tr. 318-323; Pls.' Ex. 67 A to F, Tr. 601-603, 626-627.) Petitioners claimed that the conspiracy involved in this law suit was formed in 1933 and continued until after 1938. Thus petitioners were prevented by the Court's ruling on the so-called "pre-1938" documents from introducing any evidence which would establish the terms of the agreement between respondents and from proving the specific acts which took place under said agreement from 1933 to 1938. This evidence certainly was probative on the issue of causation, i.e. whether petitioners were injured by respondents' conspiracy and violations of the anti-

[6]As an example of the type of evidence excluded by the trial Court, a copy of Pls.' Ex. 51 for Id. is attached hereto as Appendix E.

trust laws or whether petitioners' demise was caused by acts having no relation to the conspiracy.

2. There Was Direct Evidence Introduced at the Trial That Respondents Intended to Exclude Respondents' Only Competitor in Ferrovanadium, Petitioners, and Their Manufacturing Associates, From the Vanadium Industry

Mr. Burwell, in testifying on the refusal of Union Carbide to supply petitioners with vanadium oxide in November, 1943, stated that the **ONLY** reason petitioners could not obtain vanadium oxide from Union Carbide was that Union Carbide, pursuant to its conspiracy with VCA, wanted petitioners out of the vanadium business. He testified:

> "Q. (By Mr. Alioto). Did you know at that time that Mr. Leir, or the Continental Ore Company, were trying to buy—was trying to buy vanadium oxide from your company?
>
> A. Oh, yes, I heard that at that time.
>
> Q. Do you know why they would not sell it to them?
>
> A. Well, I heard exactly that they did not want to sell vanadium to Mr. Leir because they wanted to keep him out of the vanadium business. *No other reason.*" (Tr. 547; emphasis added.)

Mr. Burwell further testified that Mr. Bransome, President of VCA, told him in 1948 that VCA did not want Leir back in the vanadium business. (Tr. 222-226.) Mr. Burwell testified that Mr. Bransome told him:

> "That would put Mr. Leir in the vanadium business and that is what we are trying to keep him out of." (Tr. 226.)

Mr. Burwell further testified that it was the corporate policy of Union Carbide to keep Leir out of the vanadium business:

"Q. Now, you testified, did you not, that you heard that Union Carbide did not want to sell vanadium to Mr. Leir because they wanted to keep him out of the vanadium business?

A. That's right.

Q. Now, who told you this, Mr. Burwell?

A. Oh, I heard that from Mr. Van Vleet, I heard that from—I heard that in a dozen conferences. I don't recall exactly which one—in the building, 30 East 42nd Street, New York City.

Q. Sort of rumor?

A. It was my business to be in those meetings. They weren't formal meetings. I heard it from Mr. Van Fleet, I heard the references to Mr. Leir—I had never met Mr. Leir—I knew nothing of his business excepting it came up second-handed—I heard from Mr. Jacobi.

Q. (By the Court.) Did any of these corporations, now, that you were connected with, make an order, a formal order on policy to that effect, that you know of?

A. No, your Honor. No smart lawyer would let a corporation make a formal order in writing of that kind of thing. One of our instructions was never to write anything down like that." (Tr. 611.)

3. There Was Direct Evidence Introduced at the Trial or Offers of Proof Which Were Erroneously Excluded by the Trial Court That Respondents Directly Interfered With Petitioners' Manufacturing Associates

(a) Petitioners Proved That VCA Interfered With Petitioners' Relationship With Apex Smelting Co. in Order to Keep Petitioner Out of the Vanadium Business

Evidence introduced by Petitioners proved or tended to prove that while Apex was still a manufacturing associate of petitioners, officials of VCA and Apex had secret

negotiations which culminated in an agreement whereby Apex was to stay out of the vanadium business, furnish VCA with Petitioners' list of suppliers and, in return, VCA would purchase 150,000 to 200,000 pounds of dioxiding aluminum ingots from Apex over a period of six or seven months for $10,250-$27,000. (Pls.' Ex. 62, Tr. 2144; Tr. 1335-1337, 1947-1949.)[7] Apex subsequently terminated its association with petitioners even though Mr. Leir requested Apex to resume production again. (Df. V.'s Ex. 2-C, Tr. 1194-1196.)

(b) Evidence That Union Carbide Threatened Reprisals Against Climax Molybdenum Co. If Climax Maintained Its Association With Petitioners Was Erroneously Excluded

Petitioners made an offer of proof to prove through Mr. Martin Wolf, petitioners' Vice-President, that Union Carbide threatened reprisals against the Climax Molybdenum Co., another manufacturing associate of petitioners, if Climax continued negotiations with petitioners and persisted in the vanadium business. This evidence was excluded by the trial Court.

The offer of proof, in part, as stated by counsel for petitioners to the trial Court, was as follows:

> "Mr. Arrouet said further that the plaintiff, the Continental Ore Company, had no business in the vanadium business. Mr. Arrouet said further to the plaintiff that they had better stay away from Climax and not try to make any arrangements with Climax, and they were then entering negotiations with them, as the offer of this evidence will tend to show.

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[7] Pls' Ex. 62, evidence of this transaction, is attached hereto as Appendix E.

"Mr. Arrouet told them to stay away from Climax, and, if Climax got into the business, that Union Carbide would undertake a reprisal against the Climax Molybdenum Company.

"He said, in that connection, that Union Carbide had available at its plant in California, its tungsten operation in California, quantities of molybdenum that they would use against the Climax Molybdenum Company if that company entered into negotiations with the plaintiff to manufacture ferrovanadium for the account of the plaintiff or under a joint operating arrangement with the plaintiff.

"At that juncture this witness, we offer to prove, that this witness said, in substance or effect, 'Does it mean, then, Mr. Arrouet, that the picture of the world is something like this: God told Electromet to make vanadium, tungsten, ferro-manganese and God told Vanadium Corporation to make ferrovanadium and that nobody else would be allowed into these fields?' To which the employee of Electromet Company and the Union Carbide affiliate answered: 'That was just about it.' And 'That's the way it was going to be.'" (Tr. 828-829.)

(c) Respondents Uniformly and Jointly Refused to Supply Petitioners With Vanadium Oxide in November, 1943, so as to Interfere With Petitioners' Manufacturing Association With Imperial

In November, 1943, petitioners made requests to both Electromet Sales and VCA for monthly supplies of oxide. (Wolf, Tr. 1012-1013; Burwell, Tr. 546-547; Pls.' Exs. 40, 41, 42, Tr. 268-273.) These requests were jointly refused. The evidence very specifically showed that petitioners made these requests for vanadium oxide from the respondents in November, 1943, in order to supply their manu-

facturing associate, the Imperial Paper and Color Corp., with vanadium oxide. This supply of vanadium oxide would have permitted Imperial to start production of ferrovanadium under a contract which petitioners were negotiating with Imperial, which petitioners were positive they could make (Tr. 1013), and which *was* eventually made (Pls. Ex. 110, Tr. 2175). Mr. Wolf testified:

"Q. (By Mr. Alioto) Now, Mr. Wolf, you were with Continental Ore Company in November of 1943, were you not?

A. That's correct.

Q. And you were with them at the time that the request was made in November to both Electro Metallurgical Sales Corporation and Vanadium Corporation of America to supply you with regular monthly supplies of vanadium oxide?

A. That's correct.

Q. Now, what was the situation in November of 1943 with respect to contractual arrangements with any proposed manufacture of ferrovanadium? Did you have any at that time?

A. In November of '43?

Q. Yes.

A. We had a contract with Imperial Paper.

Q. Well, I think your dates may be a little awry, but to establish those definite dates on matters on which both——

Mr. Archer. That's January, 1944, whatever the date is. We can develop that.

A. We had negotiations at that time which we were sure would lead to a contract with Imperial Paper, so we were trying to,——

Q. (By Mr. Alioto) All right. The contract was actually made in January of 1944, is that correct?

A. Yes. But we were trying to get a basis of raw materials for our negotiations for the forthcoming contract." (Tr. 1012-1013.)

The specific reason for respondents' refusal to supply petitioners *at this exact time* was that Union Carbide desired to exclude them from the industry. (Burwell, Tr. 546-547.) Burwell testified that Electromet did not sell oxide to petitioners [Leir] at this very time because respondents wanted "to keep him out of the vanadium business". (Burwell, Tr. 547.)

(d) Respondents Acquired Government Mills Not Needed by Them to Prevent Independent Operators From Acquiring Them

In November, 1943, following the end of the vanadium stockpile program, respondents moved to prevent independent operators from acquiring the government subsidized mills and, thereby, gain a toehold in the vanadium business. Accordingly, VCA leased the Monticello Plant from the Defense Plant Corporation (Pls.' Ex. 6, Tr. 2070), and USV acquired the Durango Plant at a cost of approximately $75,000 (Pls.' Ex. 38, Tr. 2119). Mr. Burwell testified that USV acquired the Durango Mill because USV "wanted to keep control of the production of vanadium" (Tr. 241-247) and because some independents were trying to buy it (Tr. 242). In so doing they thwarted Mr. Leir's plans to form an independent cooperative association of miners and millers. (Df. V's Exs. 2-K-L, Tr. 2533-2554; 1774-1780.)

4. During the Period 1938 to 1946, Respondents Refused to Deal With the Petitioners, and Thereby Deprived Petitioners Access to Over 90% of the Industry's Supply of Vanadium Oxide

Petitioners or their associate Apex made the following requests for vanadium oxide from respondents:

Date	Request	Action by Respondents
July 28, 1939[1]	10,000 lbs. a year from VCA	No response
Oct. 17, 1939[2]	5,000 lbs. oxide from VCA	Refused[3]
Oct. 17, 1939[4]	4,000 lbs. ferro-vanadium from VCA	Refused[5]
March, 1940[6]	Vanadium Oxide from VCA	Refused[7]
Oct. 17, 1940[8]	Oxide from Electromet	Refused[9]
June 14, 1941[10]	Vanadic Oxide from Electromet	No response[11]
June 16, 1941[12]	That Petitioners be allowed to convert oxide for VCA	No response
June 16, 1941[13]	That Petitioners be allowed to convert oxide for Electromet	Rejected[13]
July 16, 1941[14]	Through OPM, Vanadium Section, Petitioners asked for oxide from VCA	Refused
July 16, 1941[15]	Through OPM, Vanadium Section, Petitioners asked for oxide from Electromet	Refused
May 21, 1943[16]	That Electromet fill Continental's oxide requirements for the remainder of the year	Unable to accept[16]
Nov. 16, 1943[17]	10,000 to 15,000 lbs. Vanadium oxide from VCA per month, any fixed length of time	Refused[17]
Nov. 17, 1943[18]	10,000 to 15,000 lbs. Vanadium oxide from Electromet per month, any fixed length of time	Refused[18]

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[1]Pls.' Ex. 132, Tr. 2258.
[2]Pls.' Ex. 132, Tr. 2259-2260.
[3]Pls.' Ex. 132, Tr. 2260.
[4]Pls.' Ex. 132, Tr. 2259-2260.
[5]Pls.' Ex. 132, Tr. 2260.
[6-7]Pls.' Ex. 63, Tr. 779-780.
[8-9]Pls.' Ex. 128 (not printed); See Df. V's Ex. 1-N, Tr. 2506.
[10-11]Pls.' Ex. 77; Tr. 776.
[12]Pls.' Ex. 132, Tr. 2261-2262.
[13]Pls.' Ex. 77, Tr. 776-778.
[14]Pls.' Ex. 132, Tr. 2265.
[15]Pls.' Ex. 132, Tr. 2265.
[16]Df. U's Ex. 4-M, Tr. 955, Df. U's Ex. 4-N, Tr. 957.
[17]Pls.' Ex. 40, Tr. 271. Pls.' Ex. 41, Tr. 271-272.
[18]Pls.' Ex. 42, Tr. 272-273.

Since respondents controlled over 90% of the existing supplies of vanadium oxide (Tr. 1844-1845, Pls.' Exs. 136-137 (not printed), Tr. 1254-1256), these refusals constituted a withholding from petitioners by respondents of the only source of a steady, dependable and active supply of oxide necessary to support a vanadium business.

5. There Was Direct and Circumstantial Evidence Introduced at the Trial That Respondents Directly Thwarted Petitioners' Independent Supplies of Vanadium Oxide

(a) The Nisley and Wilson Mill

Mr. Nisley, owner of the Nisley & Wilson Mill, testified that respondents caused him to close his independent mill in October, 1942, and to cancel his relations with petitioners. (Tr. 654-658.) From October, 1942, to April, 1943, Nisley and Wilson were out of production as a result of USV's preemptive buying program at the doorstep of the Nisley-Wilson Mill. (Tr. 658-663.) Mr. Nisley testified Mr. Burwell took miners off the Nisley & Wilson scales and offered them premium prices to take their ore to Uravan. (Tr. 655-656.) Mr. Nisley testified that during the period January, 1943 to December, 1943, his production was under the control of USV, as agent for Metals Reserve Company, which required him to mill the ore furnished him by MRC and then turn the oxide back to USV, in spite of the fact that petitioners desired the oxide and Mr. Nisley specifically requested that his production go to petitioners. (Tr. 665.) Nisley testified that the Nisley-Wilson Mill went out of production permanently in January, 1944, for the reason that the mill could no longer fight the monopoly control and tactics of respondents. (Tr. 667-668.)

(b) The Blanding Mines Production

The Blanding Mill had been supplying Apex with vanadium oxide shipments from August, 1940, to January, 1941. (Pls.' Ex. 118, Tr. 2209; Pls.' Ex. 131, Tr. 2229-2233.) The relationship between Blanding and Apex was satisfactory. (Tr. 1746.) But then, in the fall of 1941, VCA negotiated the acquisition of the vanadium ore claims of Blanding's lessor, Garbutt. (Tr. 1950; Tr. 1750.) Soon after, on January 9, 1942, Blanding notified Apex that it would no longer sell oxide to Apex. (Pls.' Ex. 131, Tr. 2239; see Pls.' Ex. 127, Tr. 2222.) Petitioners desperately pleaded for the Blanding production. (Pls.' Ex. 131, Tr. 2239-2251.) VCA obtained Blanding's oxide production for the price of $1.10 per pound, f.o.b. mill. (Tr. 1759.) Higher prices offered by petitioners were turned down by Blanding, which was under the control of VCA. (Pls.' Ex. 157, Tr. 2341; Tr. 1738-1740, 1758-1759.) On March 28, 1942, petitioners offered Blanding $1.20 per pound. (Pls.' Ex. 131, Tr. 2246.) Mr. Leir pleaded with Blanding that "you must help us stay in business now, for your sake as well as ours". (Pls.' Ex. 136, Tr. 2244.) Nevertheless the Blanding production went to VCA. Although Blanding, as an independent mill, was exceedingly important to petitioners, it was eventually turned into an ore selling operation by USV as agent for MRC after the Defense Plan Corporation had rehabilitated the mill. (Tr. 1764-1773.)

(c) Shattuck or North Continent Mill

Another of petitioners' suppliers of vanadium oxide was the North Continent Mill. North Continent was turned into an ore selling operation in the Spring of

1943, and ceased to mill vanadium oxide. The payments for the ore came from USV, as agents for MRC. (Cf. U's Ex. 3R, Tr. 915-917.)

6. Respondents Prevented Petitioners From Shipping Vanadium Products Into Canada by Utilizing the Power Granted by the Canadian Government to Electromet of Canada, a Wholly Owned Carbide Subsidiary, to Allocate Vanadium Supplies During the War Period

The trial Court excluded documentary evidence and the testimony of Mr. Martin Wolf that, commencing in 1943, as part of the conspiracy between Union Carbide and VCA, Electromet of Canada, a wholly owned subsidiary of Union Carbide acting under direct orders from its parent company, Union Carbide, prevented the petitioners from shipping vanadium products into Canada to Canadian steel mill customers. (Tr. 801-808, 813-817.)

The offer of proof as made by petitioners' counsel, was (Tr. 826-828):

> "Now, if your Honor please, we offer through this witness to prove the following facts, that at the end of 1942 and 1943 the Electro Metallurgical Company of Canada, which had been appointed as the purchasing agent by an agency of the Canadian Government, that is, the purchasing agent for vanadium, determined that it would not permit any further shipments from the Continental Ore Company into the Canadian market. In that connection we offer to prove that he was acting under instructions from the officials of Union Carbide or its affiliate in order to eliminate the plaintiff from the Canadian market."
>
> * * * * *
>
> ". . . We tentatively offer to prove in any event that it was the Carbide officials and employees which directed their wholly-owned and controlled subsidiary

organization, the Electro Metallurgical Company of Canada, Ltd., to eliminate the plaintiff from the Canadian market, to take away his Canadian customers, and to supply those customers between the Vanadium Corporation of America and Union Carbide.

We offer to prove in this connection that it was the intent and purpose of the Carbide officials and employees to use the Canadian agency for the purpose of restraining the plaintiff's trade, and specifically for the purpose of carrying out the conspiracy to restrain and to monopolize the vanadium industry in the United States and Canada. He is one of the means in connection with that monopolization and restrain[t] to eliminate the Continental Ore Company from the business."

7. Petitioners Proved Loss of Profits and Elimination From the Vanadium Industry From Their Books and Records

From 1939 to 1942, petitioners sold an increasing amount of vanadium products. (Pls.' Ex. 119, Tr. 2212.) They sold $60,000 worth of vanadium products in 1939 and $250,000 in 1942. (Id., rounded.) Petitioners' business suffered a decline in 1943, and the results in 1944 and 1945 were token. (Id.)

The loss of Apex in January, 1942 (Df. V's Ex. 1-Y, Tr. 2519), terminating an existing 14-year contract between petitioners and Apex was the last association petitioners could make with ferrovanadium manufacturers.

Apex's production never reached its estimated capacity of between 30,000 and 40,000 pounds of ferrovanadium per month. (Tr. 856, 1113.) Instead, Apex produced less than 6,000 pounds a month (Pls.' Ex. 119, Tr. 2212 ferro-

vanadium). The shortage of vanadium oxide accounted for the lack of full production. Apex stated this in a letter dated September 17, 1941, from Apex to Mr. Leir:

> ". . . as you know, we are not getting a sufficient quantity to run our present facilities on half time." (Df. V's Ex. 1-Q, Tr. 2512-2512A.)

The loss of petitioners' Canadian business caused the sales of Petitioners' Van-Ex to drop from 71,555 pounds in 1942 to 6,480 pounds in 1943. (Pls.' Ex. 119, Tr. 2212.) The substantial business petitioners did with Atlas Steels is shown in Plaintiffs' Exhibit 79 (Tr. 2169-2174, at 2173-2174).

Such losses and exclusions were anomalous to petitioners, who reached spectacular successes in other ores and metals, fluorspar, aluminum, barytes, coal derivatives, phosphates and magnesia products. (Pls.' Exs. 124-126 for Id., Tr. 1097-1107.)

E. Errors Raised to the Court of Appeals for the Ninth Circuit

The points on appeal raised in the Court below are set forth in Appendix F to this Petition. Of course, the Court below did not consider any of these claimed errors, for it decided that the trial Court had erroneously submitted the case to the jury and should have directed a verdict in favor of respondents.

F. The Appellate Opinion

Despite the overwhelming evidence which is set forth briefly above, the Court below held *as a matter of law* that the case should not have been submitted to the jury because the evidence could not support a jury finding

that respondents' violations, which the Court below assumed to have occurred, caused petitioners' injury, which the Court below also assumed to have occurred. The Court held that it had the power to review and reweigh the evidence contrary to the only Circuit Court decision in point which held the Court did not have such power. The Court reached this conclusion even though the trial Court, which had heard all the witnesses and the evidence, felt that the evidence was sufficient to submit the case to the jury. The Court made this determination even though respondents did not obtain any pre-appellate ruling from the trial Court on the sufficiency or insufficiency of the evidence to sustain a verdict and filed no cross-appeal.

Thus, in disposing of the case in this summary manner, the Court below did not rule on any of the contentions raised by petitioners. These are set forth in Appendix F.

REASONS FOR GRANTING THE WRIT

I

THE DECISION OF THE COURT BELOW IS IN CONFLICT WITH THE DECISIONS OF THIS COURT WHICH HAVE HELD: (1) THAT VIOLATORS OF THE ANTITRUST LAWS ARE LIABLE FOR INJURIES TO COMPETITORS THEY INTENTIONALLY PURSUE; (2) THAT VIOLATORS OF THE ANTITRUST LAWS MUST ASSUME THE BURDEN OF PROOF WHEN THE EFFECT OF AN INTENDED OR FORESEEABLE ACT OCCURS

A. The Decision of the Court Below Is in Direct Conflict With Story Parchment Co. v. Paterson Parchment Paper Co., 282 U.S. 555 (1931); Bigelow v. RKO Radio Pictures, 327 U.S. 251 (1946); Eastman Kodak Co. v. Southern Photo Materials Co., 273 U.S. 359 (1927), All Landmark Decisions of This Court

Story Parchment Co. v. Paterson Parchment Paper Co., supra, held that proof of conspiracy to eliminate a competitor by three companies holding monopoly power in an effort to maintain such monopoly control, and the demise of the competitor presented sufficient evidence of causation to sustain a finding.

There can be no more certain proof of causation under Section 4 of the Clayton Act than proof of a specific purpose and intent to eliminate a competitor coupled with the actual elimination of the competitor after bona fide attempts by the competitor to remain in the industry. This is *exactly* the situation in the instant case.

We respectfully submit that the Court below, in its review of the evidence, completely lost sight of two basic and salient facts:

(1) Petitioners proved that respondents conspired to monopolize and did actually monopolize all phases of the milling and manufacture of vanadium. In fact, for the

purpose of its opinion the Court below *admitted* this to be true. Thus, the free and open market guaranteed by Congress in the anti-trust laws was destroyed during the entire period in which petitioners claimed damages. Two companies, Union Carbide and VCA, controlled the entire vanadium industry and had the power to control entry into that industry. Executive officers of both companies testified that these companies had as their purpose the exclusion of all competitors and the exclusion of these petitioners in particular.

(2) Although petitioners made bona fide attempts to remain in the vanadium industry, they were unable to do so. Petitioners' failure in the vanadium industry was in complete contrast to petitioners' fantastic and spectacular success in the other lines of ores, mineral and alloys, which offered a free market for petitioners' energies and abilities.

These two factors were not even discussed by the Court below.

Completely contrary to the opinion of the Court below, this Court has held that upon the showing of a monopoly market and the inability of a challenger to succeed in such market, a factual question is presented as to causation, the determination of which is for the trier of fact, the jury in the instant case. This is the precise holding by this Court in *Story Parchment Co. v. Paterson Parchment Paper Co.*, *supra*, reversing (1 Cir. 1930) 37 F. 2d 537.

In *Story Parchment* the majority lower Court opinion reasoned that although there was proof of conspiracy to

monopolize by fixing prices in order to eliminate a sole competitor, a fact assumed to be true in the opinion of the Court below in the instant case, that the jury verdict in the trial Court should be reversed because: (a) loss of profits would be based on surmise and conjecture; and (b) the appellant did not have sufficient capital to meet the competition of respondents anyway. Therefore, the majority opinion concluded, the plaintiff had not proved causation. The majority opinion of the lower Court in *Story Parchment* stated in summary:

> "The plaintiff has not, therefore, sustained the burden of proving that it has suffered any measurable damage from the reduced prices at which it was compelled to sell its product by reason of the alleged unlawful conspiracy of the defendants, or that the subsequent depreciation of its plant was due to any violation of Section 2 of the Sherman Anti-Trust Act (15 USCA § 2) by the defendants." (37 F. 2d 541.)

In a dissenting opinion, Judge Anderson concluded that the damages suffered by plaintiff were not speculative and that the Court had improperly invaded the province of the jury in determining that the plaintiff would have died anyway. The dissenting opinion's statements are precisely applicable here. The Court stated (p. 542):

> ". . . In a word, we have here, indisputably, a combination to kill a competitor followed by the speedy death of that competitor."

And at pages 543-544 of the dissenting opinion, Judge Anderson stated:

> "The statements in the majority opinion that the plaintiff went out of business for lack of sufficient

capital, 'and that its failure was inevitable, either from lack of capital or inefficient management or both,' amount to usurping the function of the jury. Indeed, the opinion on damages does not read at all like the opinion of an appellate court, dealing only with questions of law; it deals largely with facts solely for the jury.

"There is no discussion of the soundness of the trial court's instructions on damages. By necessary implication, they are conceded to be correct. The conclusion is (to repeat) that, without the defendants' conspiracy to put the plaintiff out of business, it would have died anyway. The logic is, in that regard, hardly distinguishable from setting up the mortality of all human beings as a defense to an indictment of manslaughter or murder. The undeniable facts are that the defendants conspired to kill the plaintiff, and the plaintiff died. The majority opinion is to the effect that the conspiracy was unnecessary; that the plaintiff would have died anyway. I do not assent to such reasoning or its results."

This Court granted certiorari and rejected the majority opinion of the lower Court and adopted Judge Anderson's dissenting opinion. This Court held "That the petitioner was injured in its business and property as a result of this unlawful combination we think also finds sufficient support in the evidence." (282 U.S. 250.)

As to the conclusion of the lower Court that plaintiff could not prove that defendants caused the depreciation of the plant since it lacked sufficient capital anyway, this Court stated:

"Disposing of the second item of damages, the court below, after referring to evidence tending to

> show that petitioner was not in a thriving financial condition, said that petitioner was without capital to meet the situation which it faced, even if there had been no conspiracy and there had been open competition; and that its failure was inevitable either from lack of capital or inefficient management or both. The court therefore concluded that petitioner had not sustained the burden of proving that the depreciation in value of its plant was due in any measurable degree to any violation of the Sherman Act by the respondents. But this conclusion rested upon inferences from facts within the exclusive province of the jury, and which could not be drawn by the court contrary to the verdict of the jury without usurping the functions of that fact finding body. Whether the unlawful acts of respondents or conditions apart from them constitute the proximate cause of the depreciation in value was a question, upon the evidence in this record, for the jury, 'to be determined as a fact, in view of the circumstances of fact attending it.' Milwaukee etc. Railway Co. v. Kellogg, 94 U.S. 469, 474, 24 L. Ed. 256. And the finding of the jury upon that question must be allowed to stand, unless all reasonable men, exercising an unprejudiced judgment, would draw an opposite conclusion from the facts." (282 U.S. 566-567.)

The *Story Parchment* factual situation is indistinguishable from the factual situation presented in the case at bar. In the *Story Parchment* case, as in the instant case, petitioner was the sole challenger to the monopolists. In the instant case, two monopolists conspired to maintain domination; in *Story Parchment* three monopolists conspired to maintain domination. In the instant case, the court below conceded, for the purpose of the opinion, that

respondents did in fact conspire to monopolize the industry. So did the Appellate Court in the *Story Parchment* case.

The *Story Parchment* decision by this Court stands for the proposition that Appellate Courts are in error when they fail to give effect to the intended effects of the conspiracy and the natural tendency which the acts committed pursuant to such illegal purpose have on competition. In the instant case we have that exact factual situation. Respondents intended to eliminate petitioners from the vanadium business. Mr. Burwell so testified. (Tr. 546-547, 222-226, 611.) We submit it is gross error under the *Story Parchment* case to refuse to allow the jury to determine whether or not the acts of respondents, who had as their intention and purpose the elimination of all competitors, caused the elimination of petitioners.

Indeed, the legal presumption is that a conspiracy to eliminate competition continues until it succeeds. As stated by this Court in *United States v. Kissel*, 218 U.S. 601 (1910), at 607-608:

> "... A conspiracy to restrain or monopolize trade by improperly excluding a competitor from business contemplates that the conspirators will remain in business, and will continue their combined efforts to drive the competitor out until they succeed."

Under the holding of the *Story Parchment* case, the question of causation is a question of fact determinable by the trier of fact when a plaintiff proves a conspiracy to monopolize, a purpose and intention to eliminate him and his actual elimination from the industry after bona fide attempts to remain in the industry. In the case at

bar, petitioners proved all these facts and more. In *Story Parchment* the defendants merely reduced prices; here there were affirmative, predatory acts of refusals to deal, of obstruction of sources of supply, of commercial interference with petitioners' manufacturing associates so as to disrupt petitioners' arrangements with these associates and thereby keep petitioners out of the industry, of a deliberate and successful elimination of petitioners from an existing and profitable export business.

The opinion of the Court below is also in direct conflict with this Court's opinion in *Bigelow v. RKO Radio Pictures, supra.* The holding of this Court in *Story Parchment* was strengthened by the *Bigelow* case. In the *Bigelow* case, this Court held that a jury could conclude as a matter of just and reasonable inference from proof of defendants' wrongful acts, their tendency to injure plaintiffs' business, and from evidence of a decline in prices, profits and values not shown to be attributable to other causes, that defendants' wrongful acts had caused damage to the plaintiffs. (327 U.S. at 264.)

The *Bigelow* case puts the burden on the wrongdoers to show that other forces led to the injury suffered by plaintiff. To the contrary, the opinion of the Court below would offer protection to violators of the anti-trust laws. Although the opinion below concedes that respondents conspired to injure petitioners, conspired to drive them out of business, conspired to achieve the end result which did in fact occur and concedes that petitioners did go out of business just as respondents intended, it concludes that a jury could not as reasonable men conclude that

respondents' conspiratorial and predatory acts were the cause of petitioners' demise and resultant injury. In effect, the opinion of the Court below asks that causation be proved by more than the mere preponderance of the evidence required in civil cases. At the very least, a factual conflict was presented by the evidence and the Court below acted in direct confiict with both the *Bigelow* and *Story Parchment* decisions of this Court in ruling that the evidence was insufficient *as a matter of law* to support a finding by a jury that petitioners' elimination from the vanadium industry and their resultant damage were caused by respondents' acts committed in violation of the anti-trust laws.

B. The Decision of the Court Below Is in Direct Conflict With Decisions of This Court and Decisions of Other Circuit Courts

1. In a Monopolized Market a Party Asserting a Bona Fide Right to Compete Need Not Necessarily Show a Refusal to Deal and Certainly Is Not Required to Show Both Refusals to Deal and Obstruction of His Other Sources of Supply

The Court below has created a great burden on those dealing in a demoralized and monopoly market. It had before it a Section 2 case. It was faced with undisputed proof of complete control over the manufacture and sale of vanadium products and a showing of numerous bona fide attempts by petitioners to enter the monopolized industry. In spite of these factors, the Court stated:

> ". . . Yet, even if the *Bigelow* decision could be enlisted to serve appellants' purposes, it was still incumbent upon them to shown on the trial that their reiterated lack of supplies was the result of defendants' refusals to deal with them and of defendants'

efforts to prevent them from obtaining raw materials elsewhere." (Opinion, Appendix A, pages 11-12.)

We respectfully submit that this holding is in direct conflict with the decisions of this Court and the decisions of other circuits for the following reasons:

(a) One dealing in a monopoly market and faced with conspiratorial and predatory tactics need not deal with the monopolists or conspirators. He may take independent avenues of competition and sue the conspirators for damages caused to him by their violation of the law. This basic rule we thought settled once and for all in 1904 by *W. M. Montague & Co. v. Lowry,* 193 U.S. 38 (1904), wherein this Court stated (p. 47):

> ". . . The plaintiffs, however could not by virtue of any agreement contained in such association, be legally put under obligation to become members in order to enable them to transact their business as they had theretofore done, and to purchase tile as they had been accustomed to do before the association was formed."

Further this Court has expressly sustained judgments or actions for damages by plaintiffs, who, after having been members of an association, disassociate themselves from the association knowing that they will be boycotted or face the loss of supplies and customers. *Eastman Kodak Co. v. Southern Photo Materials Co.,* 273 U.S. 359 (1927); *Charles A. Ramsay Co. v. Associated Bill Posters,* 260 U.S. 501 (1923); *Radovich v. National Football League,* 352 U.S. 445 (1957). It is basic that it is not incumbent on a business man, under the protection of the Sherman Act, to do business with those having the purpose and

intention of injuring him and excluding him from the market place.

(b) The unlawful acquisition and maintenance of 90% to 100% control of the sources of supply, vanadium oxide in this case, places an obligation or duty on the monopolists not to exclude, and, contrary to the opinion of the Court below, places on them a burden of equal and open dealings with those aspiring to compete.

It is respectfully submitted that the Court below has erroneously placed the burden of doing business under the Sherman Act on the wrong party. The Sherman Act created liability for injured parties because it imposed a duty and obligation on business men not to reach out and destroy the free market by preventing entry and access to the market place and by fixing prices. The Sherman Act created a duty of conduct, for the breach of which Congress sanctioned a jury trial and a judgment for damages. The duty of care, then, is on the violators of the law, and it is not within their power to foreclose a competitor's entry into the market place and then demand useless requests from him. If the law were otherwise then this Court's holding in *United States v. Griffith*, 334 U.S. 100, 107 (1948) is pure commentary:

> ". . . It follows a fortiori that the use of monopoly power, however lawfully acquired, to foreclose competition, to gain a competitive advantage or to destroy a competitor, is unlawful."

And, if this be law, petitioners herein are entitled to damages upon proof of such unlawful conduct with impact on them.

Violators of Congressional standards are liable for all consequences of the acts they intend or which are foreseeable. *Bigelow v. RKO Radio Pictures, supra; Sentilles v. Inter-Caribbean Shipping Corp.*, 361 U.S. 107 (1959); *Tennant v. Peoria & P. U. Ry. Co.*, 321 U.S. 29 (1944); *Lavender v. Kurn*, 327 U.S. 645 (1946); *Stone v. New York, C. & St. L. R. Co.*, 344 U.S. 407 (1953); *Rogers v. Missouri Pacific Railroad Co.*, 352 U.S. 500 (1957).

Upon the showing of a refusal to deal at the comparable rates or prices charged to members of the combination, there is clearly no obligation to seek discriminatory and unfavorable treatment.

In the instant case, petitioners proved that Union Carbide subsidized the domestic production of ferrovanadium of its principal competitor, VCA, by supplying it with large quantities of oxide at prices 30¢ a lb. below the standard contract price of $1.10 a lb. (Pls.' Ex. 8, Tr. 2073-2074.) Petitioners proved that Union Carbide mined and milled vanadium ore for VCA (id., Pls.' Ex. 149, Tr. 2277-2340.) Petitioners further showed that though Union Carbide supplied its co-conspirator VCA with oxide, petitioners could not obtain supplies from respondents during the period 1939 to 1946, except on government request. And even upon intervention by Metals Reserve Corporation, the evidence showed that though Union Carbide supplied petitioners, it charged them a premium price of $1.15 a lb. for oxide, 5 cents more than Union Carbide's contract price of $1.10 a pound and 35 cents more than Union Carbide's price to VCA. (Pls.' Exs. 4-5, not printed.) Under these discriminatory circumstances petitioners were not bound to remain in business and to pay

exorbitant rates which would prevent their economic success. *Story Parchment Co. v. Paterson Parchment Paper Co., supra.*

(c) This Court has never even remotely suggested that equality of opportunity is dependent upon a showing that there be requests of those who conspire to monopolize *AND* a showing that these monopolists thwarted all avenues of supply.

The Court below ruled that it was incumbent on petitioners to prove both a refusal to deal *and* that respondents prevented them from obtaining raw materials elsewhere. By the use of the word "and" the Court below would require both these conditions as necessary conditions precedent to liability. This is a clear departure from established authority and in direct conflict with the cases decided by this Court.

It has been held that the Sherman Act is an act of protection assuring equality of opportunity based on providing the public with the advantage of full and unrestrained competition. The act strikes at "every" restraint against "any person." This Court has repeatedly stated that there need not be total restraint or total control of the market. *United States v. Paramount Pictures*, 334 U.S. 131 (1948); *C. E. Stevens Co. v. Foster & Kleiser Co.*, 311 U.S. 255 (1940); *United States v. Yellow Cab Co.*, 332 U.S. 218 (1947); *Indiana Farmer's Pub. Co. v. Prairie F. Pub. Co.*, 293 U.S. 268 (1934). *Klor's, Inc. v. Broadway-Hale Stores, Inc., supra*, would seem to be a decisive holding that conspirators need not deprive a plaintiff of all supplies and thwart all avenues of supply. The boycott of competitive goods is sufficient to establish liability.

The Court below cited *no* authority from this Court which supports the novel conclusions reached in its opinion. Rather the opinion fails to apply the landmark case of *Bigelow v. RKO Radio Pictures, supra,* and actually casts great doubt on its holding. The Court admits in its opinion that *Bigelow, Eastman Kodak,* and *Story Parchment,* all landmark cases decided by this Court, hold that where a plaintiff proves a loss and a violation by defendant of the anti-trust laws of such nature as to be likely to cause the type of loss which in fact occurs, the jury, as the trier of fact, must be permitted to draw from this circumstantial evidence the inference that the necessary causal relation exists. (Opinion, Appendix A, page 11.)

However, the Court then concluded that it was "not sure" that *Bigelow* applied to this factual situation, i.e., a factual situation where the loss claimed is of specific business arrangements rather than a general loss inflicted by the defection of countless individual customers.

We know of no case in which this Court has even intimated that the holding in the *Bigelow* case is limited to any particular set of facts. The opinion of the lower Court is in direct conflict with the *Bigelow* case and creates confusion where none formerly existed. The Court's statement that it is "not sure" as to whether *Bigelow* applies now permits lower Courts to pick and choose situations wherein they can apply a holding by this Court according to their prejudices. The end result of the lower Court's uncertainty is that the private litigant is no longer certain as to what rule of causation is applicable to his particular case. The decision below embraces an interpretation of the Sherman Act which greatly narrows the meas-

ure of protection afforded the private litigant and seriously impedes the availability of the treble damage remedy to a private litigant who is the victim of a conspiracy and predatory tactics, as were the petitioners in this case.

In any case, the opinion of the Court below has created a confusion in the field of causation which can do only harm to a private litigant and which eliminates a standard which this Court has established for the guidance of both private litigants and lower Courts.

It is very respectfully submitted this Court should grant certiorari if only to resolve this confusion.

2. Even Assuming the Correctness of the Legal Conclusions of the Court Below, the Opinion Conflicts With a Just and Reasonable Interpretation of the Record as Required by This Court in Story Parchment Co. v. Paterson Parchment Paper Co., Supra

With due deference to the learned Court below, we respectfully submit that its opinion conflicts with the facts as revealed by the record. This conflict was raised and called to the Court's attention in petitioners' petition for Rehearing, which was denied. (Appendix C, page 26.)

(a) Contrary to the Statements in the Lower Court's Opinion, During the Year Prior to the Apex Cancellation, Petitioners Requested Supplies From the Respondents

In the opinion below, the Court stated that petitioners failed to make requests for supplies for a year prior to the time that lack of supplies caused Apex to end its relationship with petitioners and that this failure to make requests for supplies during the "final and most critical period of the Apex contract" made it impossible for the jury to find that respondents' refusal to deal caused Apex to terminate its business arrangement with petitioners.

But to the contrary, the record shows that Apex or petitioners did try to obtain supplies during this "critical" period.

On January 27, 1942, petitioners were notified by Apex that it was discontinuing its relationship with them. (Df. V's Ex. 1, Tr. 2519.) Production continued until June, 1942, by special agreement between Petitioners and Apex because Apex was advised that petitioners had a binding agreement with Apex and petitioners were objecting strenuously to this breach of contract by Apex. (Pls.' Ex. 62, letter dated 4-14-42, Tr. 675-676.) To stay in the vanadium business as long as they could by any means, petitioners agreed that Apex would convert all the quantities of vanadic acid petitioners could obtain for Apex from Blanding, Nisley & Wilson, and Shattuck. (Pls.' Ex. 122, Tr. 2215-2221.) Thus, the "critical year" would be from January, 1941 to January 22, 1942. It is uncontradicted that during this "critical" period, petitioners took various actions to obtain needed supplies of vanadium oxide. (See Table appearing at page 29 of this petition for the numerous requests made by petitioners.)

On July 7, 1941, petitioners requested that the Office of Production Management intervene in their behalf to secure supplies of oxide for them. (Pls.' Ex. 132, Tr. 2265.) Union Carbide and VCA *both* declined to supply petitioners. (Pls.' Ex. 132, Tr. 2265.)

Petitioners first had asked for the oxide itself (Pls.' Ex. 77, Tr. 776), then that they at least be allowed to process the oxide for respondents (Pls.' Ex. 77, Tr. 776), and finally that the government intervene to acquire supplies for them, so serious did they consider the supply

situation to be. Yet, in every instance, petitioners were refused and they received no supply.

From October to December, 1941, petitioners frantically attempted to obtain oxide. Having been turned down by respondents, petitioners centered their attention on obtaining acid from the Defense Plant Corporation Monticello Plant, which was under the administration of VCA. (Pls.' Ex. 144, Tr. 2266-2270.) On December 3, 1941, Apex requested the Defense Plant Corporation to sell them vanadium oxide from the Monticello Plant which was to be erected. (Id., Tr. 2266.) This request was suggested to Apex by petitioners after petitioners learned that VCA was to construct the plant. (Tr. 2267.) Again on December 26, 1941, Apex wrote the Vanadium Division, Office of Production Management, seeking a source of oxide supply. (Pls.' Ex. 146, Tr. 2271-2272.) These requests were made by Apex at the urging and insistence of Mr. Leir. (Id., Tr. 2273-2275.) That Mr. Leir felt it was the better exercise of business judgment to attempt to get government aid in obtaining supplies which were denied him directly by respondents is obvious. Mr. Leir wrote:

> ". . . As far as we can see, the production of Ferro Vanadium has been mainly localized to two very big outfits in this country, and we think we are not asking too much if we apply to you for a better distribution of the available Vanadium Oxide, all the more as the Government is spending a lot of money for new production facilities and road construction out West." (Pls.' Ex. 146, Tr. 2275.)

Contrary to what the opinion of the lower Court states, the evidence showed a steady and determined joint refusal by respondents to sell to petitioners.

By February 16, 1942, petitioners had received assurances of governmental cooperation in obtaining additional supplies of vanadic acid. (Df. V's Ex. 2-A, Tr. 1176-1185, at Tr. 1177.) Four days after this letter was written, VCA held the meeting with Apex which finally resulted in direct commercial arrangements between Apex and VCA for the purchase of aluminum ingots by VCA, which, in the circumstances of this case, certainly permitted the inference to be drawn that the consideration for these arrangements was the discontinuation of the contract petitioners had with Apex. (Pls.' Ex. 62, Tr. 672-676, 1335-1336, 1947-1949, 2144-2146.)

Therefore, the record shows numerous requests by petitioners to buy from respondents a year before the notice of cancellation was sent by Apex to petitioners, deliberate refusals to deal with petitioners by respondents, and bona fide attempts by petitioners to obtain vanadic acid from other sources.

Furthermore, the refusal of Blanding Mines to deal with petitioners in January, 1942, after VCA had acquired Blanding's ore bodies, can also be construed as an act of a co-conspirator in refusing to deal.

(b) Contrary to the Statements in the Lower Court's Opinion, the Record Does Contain Evidence of the Pending Negotiations Between Petitioners and the Climax Molybdenum Co.

In the opinion below, the Court stated that the record contained no evidence of the nature of the "pending negotiations" between Climax, and petitioners.

But such a conclusion can be drawn only by ignoring completely the direct testimony of Mr. Wolf, petitioners'

Vice-President. Mr. Wolf testified that petitioners lost Climax as an associate because of respondents' interference with Climax (Tr. 978) and that respondents prevented the *continuance* of petitioners' existing relationship with Climax by their interference and threats of reprisals. He stated:

> "We had at that time lost as partners in this field Apex Smelting, who had previously manufactured ferrovanadium in conjunction with us as our partners. We had likewise lost Climax Corporation, who had done the same thing to us, and did not *continue* because of interference by the defendants with Climax." (Emphasis supplied.) (Tr. 978.)

Mr. Wolf's testimony was substantiated by other evidence. For example, on May 21, 1943, petitioners requested that Electromet fill Continental's oxide requirements *for the remainder of the year.* (D's Ex. U-4-M, Tr. 955-56.) On that date, Mr. Wolf wrote to Electromet Sales:

> ". . . We are perfectly willing to sign a contract with you for our requirements until the end of the year. At present, these requirements are estimated to amount to about 10,000 lbs. of V contained in pentoxide *per month.*" (Emphasis added.)

Mr. Wolf testified that this request, made in the latter part of May, 1943, was specifically for a *continued* arrangement with Climax. He testified,

> "Q. Do you recall for which of these contracts you made that demand for the requirement contract?
>
> A. Which of these——?
>
> Q. For which of either the Imperial or the Climax contract?
>
> A. That was in June? No.

Q. June of '43?

A. *June of '43? That would have been probably for Climax, I would say.*

Q. Now then, you never did get the requirement contract?

A. No.

Q. In 1943, did you?

A. No." (Tr. 1018, emphasis added.)

Respondents rejected this request and denied petitioners any supply.

In other words, petitioners were requesting oxide for their Climax contract as late as June, 1943. Thus, this Court's statement that the "earlier transaction stands alone in the record as the only connection between Climax and Continental" is in error, as is its conclusion that the threat of reprisal was made to a corporation with which Continental had no business. Climax was to continue their arrangement with petitioners to produce ferrovanadium for them. Mr. Wolf so testified. (Tr. 978, 1018.) Petitioners' offer of proof showed that respondents threatened Climax with reprisals to disrupt petitioners' association with Climax and thereby prevent petitioners from staying in the vanadium business.

The Court below overlooked or failed to consider pertinent facts as to the Climax relationship. It completely and incorrectly swallowed respondents' theory of the transaction and gave petitioners none of the inferences to which their evidence entitled them.

(c) Petitioners Specifically Attempted to Obtain Vanadium Supplies From Respondents for the Imperial Paper & Color Co. Relationship

The opinion of the Court below held that petitioners could not complain of any injury because of the loss of their relationship with Imperial Paper & Color Co. because petitioners could not show that they sought to alleviate their lack of supply by seeking supplies from respondents at any time during the life of the Imperial venture.

But the proof was to the contrary. The requests for supplies made by petitioners in November, 1943, only a month and a half before the signing of the Imperial contract, were for the specific purpose of supplying Imperial with vanadic acid for its manufacturing arrangement with petitioners. (Tr. 1012-1013.) Since petitioners had been turned down previously in a period when oxide was clearly available, any trier of fact could reasonably and justly conclude that petitioners did not need to make any useless demands upon those who consistently had refused to supply them. At the time Imperial was attempting to obtain a steady supply of vanadium products for its arrangement with petitioners, respondents held a 100% control of the domestic vanadium oxide and ferrovanadium production. (Pls.' Exs. 18, 136-138, not printed.)

(d) The Nisley and Wilson Mill Was Out of Production From October, 1942, to April, 1943, as a Result of the Acts of the Respondents

The Court below stated that petitioners' refusal to buy the Nisley and Wilson Mill's production from MRC after April, 1943, prevented them from claiming any interference by respondents during the Van-Ex period. (Opinion, Appendix A, pp. 18-19.)

But the evidence showed that respondents' conspiracy to monopolize shut down the Nisley and Wilson mill from October, 1942 to April, 1943. (Tr. 662-663.) Mr. Nisley himself testified that respondents caused him to cancel his relations with petitioners (Tr. 658), and that respondents caused his mill to fall under the control of USV, an agent for MRC. (Pls.' Ex. 74, Tr. 2162-2168, Tr. 660.)

Petitioners' refusal to acquire unflaked oxide from Nisley and Wilson is not determinative of any issue whatsoever. (Tr. 932-933.) Initially, a monopolist may not demand that his competitors obtain unwanted materials after he has refused to deal with them pursuant to a purpose and intent to exclude. Secondly, at the very most, the failure to buy unflaked oxide was just a factor which the trier of fact could weigh with the other evidence to determine whether there was an exclusion.

It is submitted that it is error for a Court to usurp this jury function by rationalizing the evidence and making a determination of a question of fact, which the Court below did in this case.

(c) Petitioners' Failure to Acquire 300,000 Pounds of Oxide in January, 1944, Related Not to "Oxide", as the Court Below Concluded, But to Raw Ore in Stockpile Owned by MRC and Concerned a Time Period After Nisley & Wilson Had Already Closed Their Mill as a Result of Respondents' Activities

The opinion of the Court below is also in error in stating that Nisley and Wilson had on hand a stockpile of approximately 300,000 pounds of oxide which they tried to sell to petitioners in the spring of 1944 and which petitioners refused to buy. (Appendix A, Opinion, p. 19.)

The evidence showed that Nisley and Wilson had closed their mill in January, 1944, as a direct result of respondents' activities. (Tr. 667-668.) Therefore, Mr. Nisley was not offering petitioners the production of his mill, which was not then even in operation. Mr. Nisley was merely suggesting that he process a stockpile of raw ore located at Gateway which did not belong to Nisley and Wilson, but to MRC. (Tr. 732-734.) The offer was simply the expression of an idea. Prices, terms, and Nisley & Wilson's actual ability to obtain the stockpile were conjectural. However, in spite of this, the evidence showed that Mr. Leir stated that he would "give [Nisley] all possible cooperation". (Df. U's Ex. 2-W, Tr. 733-734.) The evidence was that Mr. Nisley was forced to terminate his production although he knew that petitioners would buy all the material he could produce. (Tr. 667.) Mr. Nisley so testified. (Tr. 667.) This is but another example where the Court below evaluated the evidence, failed to draw proper inferences and usurped the function of the jury to decide a conflict in the evidence.

(f) Petitioners' Failure to Buy Flakes From Nisley and Wilson in October, 1943, Related to a Plan in the Future Since Nisley and Wilson Were Under the Control of USV, Agent for MRC From April, 1943, to January 1, 1944

The opinion of the Court below is also in error when it states that petitioners refused oxide offers from Nisley and Wilson in November, 1943, at a time when petitioners claimed respondents failed to supply them with their requests for oxide. (Opinion, Appendix A, pp. 18-19.)

Nisley and Wilson's production was under the control of MRC from April, 1943 to January 1, 1944. (Pls.' Ex.

74, Tr. 677, 2162-2168.) It was not until the middle of December, 1943, that Nisley and Wilson learned of the cancellation of their contract by MRC (Df. U's Ex. 2-U, Tr. 729, 2440.) On December 1, 1943, USV had been given the discretion to cancel out Nisley & Wilson with the qualification that USV could continue this relationship if it believed that "this program should be continued in the interest in the procurement of other products than vanadium." (Df. U's Ex. P, Tr. 408-409.) It is obvious that in October, 1943, a time when Nisley's production was controlled by USV, Nisley and Wilson could not have been offering their production to petitioners. Obviously, Mr. Nisley was only thinking ahead to post-war conditions. (Df. U's Ex. 5-J, Tr. 1209, 2471-2473.) This is substantiated by Mr. Leir's reaction to Mr. Nisley's suggestion. Mr. Leir, rather than being uninterested, as the Court below concluded, wrote to Nisley:

> "We would also like to know whether you believe that after the war you will be in a position to either operate your own mines or to buy ore from independent miners.
>
> "The war may be over in the not too distant future, *and we would like to obtain an idea as to what your situation would be at that time.* There are already signs of abundance of basic ores and minerals, but we are anxious to cooperate with you and keep your mill running in peacetime.
>
> "*Please let us know at the same time when your present contract with the Metals Reserve Company expires.*" (Tr. 1210, 2473, emphasis added.)

II

THE DECISION OF THE COURT BELOW IS IN DIRECT CONFLICT WITH THE DECISIONS OF THE FIRST, FOURTH AND SEVENTH CIRCUITS ON THE REASONABLENESS OF PETITIONERS' EFFORTS TO SEEK ENTRY INTO THE MARKET PLACE AND THE NECESSITY OF DEMANDS OF OXIDE FROM RESPONDENTS

A. The Reasonableness of Petitioners' Conduct in Seeking Entry Into the Market Place

On the basis of the conflict presented by the evidence, only the trier of fact, the jury in the instant case, could determine the reasonableness of petitioners' conduct in seeking bona fide entry into the market place. Monopolists cannot require businessmen to take alternative courses in confronting the monopoly.

Having shown that the conspiracy to monopolize included as one of its elements the exchange of oxide between respondents in order to support each other, petitioners could rely upon their requests for supplies at reasonable prices which would allow their entry into the market place. This presented a prima facie case for the jury's determination. The Fourth Circuit held in *American Federation of Tobacco Growers v. Neal* (4th Cir., 1950), 183 F. 2d 869, that monopolists are bound to entertain business with competitors under reasonable conditions even though they possess advantages stemming from the expenditure of substantial capital. This ruling was followed by the First Circuit in *Gamco, Inc. v. Providence Fruit & Produce Bldg.* (1 Cir., 1952), 194 F. 2d 484. At page 487 that Court stated:

> "... To impose upon plaintiff the additional expenses of developing another site, attracting buyers, and transhipping his fruit and produce by truck is clearly

to extract a monopolist's advantage. [Case cited.] The Act does not merely guarantee the right to create markets; it also insures the right of entry to old ones. [Cases cited.]"

B. In Holding That a Demand for Oxide From Respondents Was Indispensable in a Case Which Showed a Conspiracy to Monopolize an Industry Resulting in 100% Control and a Purpose and Intention to Eliminate Independent Competitors the Court Below Is in Conflict With the Seventh Circuit

It is not incumbent on one who enters into the market to demand that a conspiracy to monopolize cease. Having shown that respondents were aware of petitioners' competition, and having shown a purpose and intention to eliminate them, petitioners were under no obligation to continually renew attempts to obtain supplies. *Congress Building Corp. v. Loew's, Incorporated* (7 Cir. 1957), 246 F.2d 587. At page 595, that Court stated:

". . . The defendants had a duty to refrain from acts injurious to others and we know of no rule that states that demand is necessary in an action to enforce a liability arising from a tortious act. See generally, 1 Am. Jur., Actions § 36; 1 C.J.S. Actions § 27; 86 C.J.S. Torts § 51. Neither Section 4 of the Clayton Act, nor the terms of any agreement or undertaking by plaintiff with any of the defendants, express or implied, nor the circumstances of this case require a demand as a condition precedent to the maintenance of this action."

III

THE COURT BELOW ERRONEOUSLY APPLIED THIS COURT'S DECISION IN EASTERN RAILROAD PRES. CONF. v. NOERR MOTOR FRGT., INC. (1961), 365 U.S. 127, 81 S.CT. 523, WHICH ONLY HELD THAT THE SHERMAN ACT DOES NOT APPLY TO JOINT ACTION TO LOBBY OR TO INFLUENCE THE PASSAGE OF LEGISLATION

A. Eastern Railroad Pres. Conf. v. Noerr Motor Frgt., Inc., Supra, Does Not Apply to the Exclusion of Competition Accomplished Under and Pursuant to the Terms of a Conspiracy to Monopolize an Industry by Predatory Business Tactics, Part of Which Conspiracy Included the Use of One of the Co-Conspirator's Subsidiaries Which Had Been Given the Power to Allocate Vanadium by the Canadian Government to Exclude Petitioners as Competitors and Arrange Market Division

The exclusion of petitioners from the Canadian market was part of an overall plan to conspire to monopolize the vanadium industry. Electromet of Canada, a Canadian subsidiary of Union Carbide, was appointed by the Canadian government to act as its agent in purchasing vanadium for its steel makers. Electromet of Canada was given authority to use its discretion in making purchases and was never authorized by the Canadian government to conspire with any other company. It was simply supposed to allocate the purchase of oxide. However, respondents, both American corporations, were engaged in a conspiracy to monopolize the vanadium industry, a part of which conspiracy was to eliminate petitioners. In furtherance of the basic conspiracy, Electromet of Canada, the wholly owned subsidiary of Union Carbide which was completely dominated and controlled by Carbide, was ordered by its parent Union Carbide to allow into Canada only shipments of oxide from Union Carbide

and VCA and to prevent and eliminate petitioners from selling their products to their customer, the Atlas Steel Co. in Canada. The power given to Union Carbide's Canadian subsidiary was used by respondents to further the basic conspiracy to eliminate petitioners. The Canadian government was not charged with any illegality in this case, and was totally oblivious to the purpose for which the Canadian subsidiary refused to allocate to petitioners or their customers. The elimination and the predatory tactics dictating the policy of the Canadian Company which brought about the elimination of petitioners took place in the United States and was an arm of the American conspiracy. The citation by the Court below to *Eastern Railroad Presidents Conference v. Noerr Motor Freight, Inc., supra*, to support the proposition that the above described conduct does not violate the Sherman Act is erroneous.

The *Noerr* case is a narrow and specific holding that the Sherman Act does not control joint action to lobby or to influence the passage of legislation, although, even in this field, this Court concedes "There may be situations in which a publicity campaign, ostensibly directed toward influencing governmental action, is a mere sham to cover what is actually nothing more than an attempt to interfere directly with the business relationships of a competitor and the application of the Sherman Act would be justified". (81 S. Ct. 533.) It is clear that the purpose and objective in the *Noerr* conspiracy was to associate and bring about forceful lobbying campaigns for the advantage of the lobbying group. The Canadian market arrangement, in the instant case, was a

strict and classic market division agreement under which Union Carbide instructed its Canadian subsidiary to allocate vanadium imports only to Union Carbide and VCA, to eliminate petitioners from the Canadian field, to take away petitioners' Canadian customers, and to allocate those customers between VCA and Union Carbide. (Tr. 828.) This traditional, predatory conduct has always been held to violate the Sherman Act. Furthermore, the elimination of competition, even under the tacit approval of governmental representatives, does not grant any kind of immunity from Sherman Act violations. *United States v. Socony-Vacuum Oil Co.*, 310 U.S. 150 (1940). Acts done to give effect to the conspiracy may be in themselves wholly innocent acts, but still the conspiracy taken as a whole may violate the Sherman Act. *American Tobacco Co. v. United States*, 328 U.S. 781 (1946). The present action was against private corporations for their private action and does not, for example, involve in any way "state action" as was involved in *Parker v. Brown*, 317 U.S. 341 (1943).

B. Respondents' Unlawful Use of the Subsidiary's Canadian Agency Agreement for the Purpose of Violating the Anti-Trust Laws Did Not Immunize Respondents From Liability

Private corporations such as Union Carbide and VCA are not immune from the anti-trust laws if they conspire to violate the anti-trust laws, and if, as part of that conspiracy, they unlawfully use an agency agreement which the Canadian government has with one of their wholly controlled subsidiaries, to eliminate competitors from the Canadian market. Private corporations who undertake, through subsidiaries or otherwise, to assume certain

functions for the government are themselves responsible for their own tortious conduct when said conduct conflicts with the anti-trust laws. It is fundamental that legal means may not be used to accomplish an illegal objective and that the cloak of an agency agreement cannot be used to violate the Sherman Act.

In *Atchison, Topeka & S.F. Ry. Co. v. Aircoach Transport Ass'n* (D.C. Cir. 1958), 253 F. 2d 877, cert. denied 361 U.S. 930 (1960), it was held that even though the alleged conspiratorial agreements were within the specific immunity section of the Interstate Commerce Act and although a certificate of immunity may have been obtained, the agreements therein concerned nevertheless would be held to be violations of the anti-trust laws if they were part of a plan of conspiracy to eliminate competition. The Court held (p. 887):

> ". . . Even though it should be found in the end that the practices as such have been validly immunized by section 5a approved agreements, nevertheless, if they are part of an effort by Railroads in combination or conspiracy to eliminate the competition of Aircoach, rather than used merely to meet that competition, the practices would be removed from the protection of section 5a (9)."

In *State of Georgia v. Pennsylvania*, 324 U.S. 439 (1945), defendants contended, in answer to a charge that they had fixed rates in violation of the anti-trust laws, that the ICC had actually approved the rates under the ICC Act standards. This Court held that even though rates were cleared by the ICC, the anti-trust laws were violated if the rates fixed, although reasonable and non-discriminatory, were restrictive rather than competitive.

Similarly, in *United States v. Socony-Vacuum Oil Co., supra*, this Court held that defendants were not immunized from violations of the anti-trust laws merely because government employees knew or approved of the activities in question.

To the same effect are: *Kobe, Inc. v. Dempsey Pump Co.* (10 Cir. 1952), 198 F. 2d 416, cert. denied 344 U.S. 837 (1952); *Bankers Life and Casualty Company v. Larson* (5 Cir. 1958), 257 F. 2d 377; *Floyd v. Gage* (4 Cir. 1951), 192 F. 2d 137; *Crammer Co. v. Du Pont* (5 Cir. 1955), 223 F. 2d 238, cert. denied 350 U.S. 848.

It has been long established that immunity from the anti-trust laws will not be created by implication, and that even when granted, the immunity will not extend to acts beyond the legitimate objects of the conduct immunized. (*United States v. Borden Co.*, 308 U.S. 188 (1939); *Maryland & Virginia Milk Pro. Ass'n v. United States*, 362 U.S. 458 (1960); *United States v. Radio Corporation of America*, 358 U.S. 334 (1960).)

As stated by this Court in *Maryland & Virginia Milk Pro. Ass'n v. United States, supra*, the full effect of the immunity provision involved therein was that although a group of farmers acting together could not be restrained:

> ". . . 'from lawfully carrying out the *legitimate objects* thereof' (emphasis supplied), but the section cannot support the contention that it gives such an entity full freedom to engage in predatory trade practices at will. [cases cited.]" (pp. 465-466.)
>
> * * * * *
>
> ". . . It does not suggest a congressional desire to vest cooperatives with unrestricted power to restrain trade or to achieve monopoly by preying on inde-

> pendent producers, processors, or dealers intent on carrying on their own business in their own legitimate way." (pp. 466-467.)

In the same way, the fact that Electromet of Canada had an agency contract with the Canadian government is basically immaterial when it was proved that the corporation was under the complete domination and control of Union Carbide and that the agency relationship was used by Union Carbide and VCA to further a monopoly and conspiracy to control the American vanadium industry and, in furtherance of said conspiracy, to eliminate petitioners' Canadian business and thereby destroy them as a competitor to respondents in the American vanadium business. The citation by the Court below in the *Noerr* case as controlling was erroneous and completely beyond the scope, purpose and intent of the *Noerr* decision.

In *United States v. Griffith*, 334 U.S. 100 (1948), this Court held (p. 107):

> "It follows *a fortiori* that the use of monopoly power, however lawfully acquired, to foreclose competition, to gain a competitive advantage or to destroy a competitor, is unlawful."

V

THE DECISION BELOW IS IN CONFLICT WITH THE SEVENTH AMENDMENT OF THE CONSTITUTION AND THE DECISIONS OF THIS COURT WHICH PREVENT THE REEXAMINATION OF FACTS TRIED BY A JURY

A. An Appellate Court Does Not Have the Inherent Power to Review Judgments Based on Facts Submitted to a Jury Without Having the Issue of Sufficiency of the Evidence Properly Raised by Appeal From a Prior Determination by the Trial Court

Petitioners respectfully urge that the procedure adopted by the Court below is in basic conflict with the Seventh Amendment of the Constitution and the decisions of this Court.

The Court below assumed that it had the power to review a judgment based on a jury verdict after the issue of causation had been given to the jury by the trial Court even though the trial Court had not at any time ruled on the sufficiency of the evidence and respondents had filed no cross appeal specifying the evidentiary issue as a point on appeal. In their appeal from the judgment, petitioners raised serious legal questions. Without any prior ruling by the trial Court, without any cross appeal, without any specification of error on the factual issue of causation by respondents, the Appellate Court volunteered to review the evidence and replace the jury as the trier of fact. It is basic that Appellate Courts can review facts only after the trial Court has made definite rulings on them as a matter of law or only after such issues have been raised by proper motion or appeal. *Parsons v. Bedford*, 3 Pet. 433, 7 L. Ed. 732 (1830); *Aetna Life Ins. Co. v. Ward*, 140 U.S. 76 (1891).

In *Slocum v. New York Life Ins. Co.*, 228 U.S. 364 (1913) and *Aetna Insurance Co. v. Kennedy*, 301 U.S. 389 (1937) this Court held that it was unconstitutional for an appellate Court to enter judgment upon appeal from a losing verdict when the trial Court did not reserve a ruling as to the motions attacking the sufficiency of that evidence. In *Baltimore & Carolina Line v. Redman*, 295 U.S. 654 (1935) this Court held that an appellate Court could enter judgment after verdict and contrary thereto where, in accordance with state practice, the district judge had expressly reserved decision on a motion for directed verdict and ruled on that motion after the jury verdict had been received. And in *Galloway v. United States*, 319 U.S. 372 (1943) this Court affirmed the right of the appellate Court to sustain a trial Court's ruling as to the sufficiency of the evidence.

But in each of these cases there was a *prior* ruling by the trial Court at the trial level determining the sufficiency of the evidence *as a matter of law*, which was then properly raised in the appellate Court as a matter of law and as a legal issue. The appeal then was from a ruling of the trial Court. This was a legal issue. In *Redman*, the ruling against appellant occurred by the trial judge after a jury verdict; however, the appellate Court was reviewing a ruling brought to it on a writ of error after a ruling on the issue by the trial judge. Here the trial Court reserved motions for a directed verdict addressed to the sufficiency of the evidence; however, it never ruled on them and submitted the case to the jury. (Tr. 1989.) The trial Court entered judgment on the jury verdict. There was no ruling made by the trial Court after the verdict. No ruling

of the trial Court was appealed or raised to the appellate Court as a legal issue by appeal from any ruling addressed to the sufficiency of the evidence. Rather, the Court below undertook a voluntary review of the facts upon the theory it could sustain a judgment on any grounds without a cross-appeal. In so doing, it recognized it was in conflict with *Thurber Corporation v. Fairchild Motor Corporation* (5 Cir. 1959) 269 F. 2d 841, which is the *only* case in point. Therefore, the Court below failed to follow the only authority directly in point on the issue, passing the *Thurber* case off as being "quite wrong".

But the conflict goes further than a mere conflict with the *Thurber* case. It is submitted that the appellate Court could not, under the Seventh Amendment of the Constitution, review facts and direct a verdict without having before it an appeal from a prior ruling of the trial Court raising the factual sufficiency as a question of law for review. An appellate Court reviews matters of law, not matters of fact. The procedure adopted here was not known at common law. The Court below has erroneously usurped the function of the jury to sit as a trier of fact and determine factual issues properly determinable by the jury. It has not passed on any rulings by a trial Court, for no trial Court ruling of any type was appealed from or obtained by respondents on the sufficiency of the evidence.

The Constitution prohibits what occurred here, i.e., a review of facts by an appellate Court. The prejudice to petitioner is obvious. Petitioners appealed claiming errors which they specified pursuant to appellate procedure. At no time were they apprised by respondents or any one

else that any question was being raised on appeal as to the sufficiency of the evidence until petitioners received respondents' *answering* brief. Respondents did not cross-appeal or specify the sufficiency of evidence as a point on appeal. Accordingly, any designation of the record was not made on that basis, and petitioners were limited to answering these serious allegations in a short and limited reply brief and on a record which was not designated with this issue in mind or as a point on appeal.

The entry of judgment for parties by an Appellate Court without strict conformity with Rule 50, F.R.C.P. has been discouraged by this Court and has not been allowed. *Cone v. West Virginia Pulp & Paper Co.*, 330 U.S. 212 (1947); *Globe Liquor Co. v. San Roman*, 332 U.S. 571 (1948); *Johnson v. New York, N.H. & H.R. Co.*, 344 U.S. 48 (1952). Respondents failed to urge any post verdict motions, failed to specify the sufficiency of the evidence as an issue on appeal and did not cross-appeal. Therefore, they chose to accept the submission of the case to the appellate Court *only* on the issues specified by petitioners.

B. The Opinion of the Court Below Conflicts With Established Standards Imposed by this Court on Appellate and Trial Courts in Determining Motions to Dismiss and for Directed Verdict in Order to Insure the Right to Trial by Jury

The decision of the Court below is in direct conflict with *Beacon Theatres, Inc. v. Westover*, 359 U.S. 500 (1959) wherein the Court held that "any seeming curtailment of the right to a jury trial should be scrutinized with the utmost care" and with the Seventh Amendment which guarantees any litigant a right to a trial by jury. Peti-

ioners were deprived of this right to a jury trial by the Court below.

We respectfully urge that the Court below did not review the evidence as a whole, did not allow the petitioners the benefit of all their evidence, did not draw the inferences and presumptions which could be drawn from the evidence in favor of petitioners, against whom the verdict was directed, did not construe all presumptions in favor of the petitioners and did not resolve all doubts in favor of the petitioners. Just a reading of the opinion of the Court below and the mental gymnastics the Court undertook to rationalize the evidence to reach the conclusions it did reach should be sufficient to point out that there was a serious conflict in the evidence. That the Court below might feel that it would have ruled for respondents had it been sitting without a jury as a trier of fact is immaterial. The conclusion is inevitable that there was a conflict of evidence and that the petitioners were entitled to have this issue determined by the jury. The Court below actually weighed the evidence and made factual determinations on conflicts in the evidence. This it did on a cold record. The trial Court which heard the evidence first hand from the witnesses' lips was of the opinion sufficient evidence was present to submit the case to the jury. We respectfully submit there was such a grave departure from ordinary appellate review by the Court below in directing a verdict that petitioners were deprived of their constitutional right to a trial by jury. *Beacon Theatres, Inc. v. Westover, supra; Tennant v. Peoria & P. U. Ry. Co.*, 321 U.S. 29 (1944); *Lavender v. Kurn*, 327 U.S. 645 (1946); *Ellis v. Union Pac. R. Co.*, 329

U.S. 649 (1947); *Stone v. New York C. & St. L. R. Co.*, 344 U.S. 407 (1953); *Rogers v. Missouri Pacific Railroad Co.*, 352 U.S. 500 (1957); *Sentilles v. Inter-Caribbean Shipping Corp.*, 361 U.S. 107 (1959).

A decision which denies the right of the jury to determine the utlimate question of causation after proof of conspiracy to monopolize resulting in a 100% control of an industry and an inability by a competitor to enter into the market place ought not to prevail.

CONCLUSION

For the foregoing reasons the Petition for a Writ of Certiorari ought to be granted.

Dated, August 9, 1961.

Respectfully submitted,

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(Appendices A, B, C, D, E and F Follow.)

Appendix A

United States Court of Appeals
for the Ninth Circuit

Continental Ore Company, a Partnership; and Henry J. Leir, Erna D. Leir, Lina Schloss, as Individuals and as Partners under the trade name and style of Continental Ore Company, Appellants, vs. Union Carbide and Carbon Corporation; United States Vanadium Corporation; Electro Metallurgical Company; Electro Metallurgical Sales Corporation; Electro Metallurgical Company of Canada, Limited; Vanadium Corporation of America, Appellees.	No. 16,149 March 22, 1961

Appeal from the United States District Court
for the Northern District of California,
Southern Division.

Before: Merrill and Magruder, Circuit Judges, and Solomon, District Judge.

Magruder, Circuit Judge.

Plaintiffs filed in the court below a treble damage antitrust complaint against defendants. Plaintiffs, a partner-

ship and the partners in it suing individually, are the successors in interest to a family corporation known as Continental Ore Corporation. Both the plaintiff partnership, Continental Ore Company, and the previous corporation will be referred to as Continental.

The guiding light in Continental has been and still is the plaintiff Henry J. Leir. Leir was born in Germany and entered the ore and metal business there. His enterprises in Germany involved for the most part the purchase of raw materials for metal producers and the sale of their finished products. Upon Hitler's rise to power Leir moved to Luxembourg, where he formed a company known as Société Anonyme des Minerais. This corporation subsequently entered into a joint venture with the Société d'Electro-Chimie de Brignoud, a French company otherwise known as Fredet-Kuhlmann. Brignoud undertook to install equipment for the production of ferrovanadium and other alloys by a process known as the alumino-thermic method; Minerais supplied the raw materials, and the profits were split evenly. In 1938 Leir moved again, this time to the United States. He organized the Continental Ore Corporation in 1939 under the laws of the State of New York.

The defendants named in the complaint are Union Carbide and Carbon Corporation, a New York corporation, United States Vanadium Corporation, a Delaware corporation, Electro Metallurgical Company, a West Virginia corporation, Electro Metallurgical Sales Corporation, a New York corporation, Electro Metallurgical Company of Canada, Ltd., a Canadian corporation, and Vanadium Corporation of America, a Delaware corporation. Several

other persons, whose names were unknown to the plaintiffs, were listed as Doe defendants.

The complaint states that, by means of a combination and conspiracy in violation of §§ 1 and 2 of the Sherman Act, 15 U.S.C. §§ 1 and 2, defendants eliminated the plaintiffs and their predecessor in interest, the Continental Ore Corporation, hereinafter included in the term plaintiffs, from the business of producing, selling and distributing vanadium oxide and ferro-vanadium. Plaintiffs claim that they made several forays into the vanadium industry, sometimes approaching the brink of success, other times not getting quite so far. Their inability to reach the desired goal in any of their various vanadium undertakings is the gist of their complaint. They ascribe their failures to defendants' alleged unlawful course of conduct.

Vanadium is a rare metallic element found for the most part in carnotite and roscolite ores. These vanadium-bearing ores are taken from the mines to the mills where they are "crushed," "roasted" and "leached" to form a substance called red cake. The red cake is then fused into a black oxide, which is called vanadium oxide, vanadic acid, vanadium pentoxide, or V_2O_5. This oxide is then converted into ferro-vanadium through the application of great heat either by means of an electric furnace or by the alumino-thermic process. The ferro-vanadium thus produced is used by steel makers in the steel bath to add toughness and tensile strength to the steel.

According to the complaint, the defendants frustrated the plaintiffs' sallies into the vanadium field in five particulars:

(1) In 1938 Leir negotiated a contract between Apex Smelting Company of Chicago (hereinafter "Apex") and Société d'Electro-Chimie de Brignoud, the French corporation. Subsequently the plaintiffs were assigned one half of Brignoud's interest under the contract. The agreement provided that Apex was to build and operate a ferro-vanadium plant, using Brignoud's alumino-thermic method of conversion. Brignoud was to contribute the secrets of this process as its part of the project. Since the profits were to be divided equally between the two signatories to the agreement, the plaintiffs, as a result of the assignment to them, became entitled to one quarter of the profits realized from the arrangement. Plaintiffs were also appointed exclusive sales agents throughout most of the United States for the ferro-vanadium to be manufactured by Apex.

Production under this agreement was not actually begun by Apex until April, 1940. The agreement was terminated by Apex in the spring of 1942. According to the complaint, Apex ceased operations in ferro-vanadium and canceled the aforesaid agreement because a sufficient supply of oxide could not be obtained, this being attributed to defendants' antitrust violations. More specifically, in pursuance of their illegal combination and conspiracy, defendants were said to have refused to sell enough oxide to Apex and also to have prevented Apex from acquiring the necessary quantities of raw materials from other suppliers.

(2) In 1942, after the termination of the unfortunate Apex joint venture, the plaintiffs transformed rented

premises on Long Island, New York, and there packaged a vanadium compound made up of vanadium oxide and small amounts of other materials. This compound, which was sold under the trade name Van-Ex, was designed for direct use in the steel bath where it could be converted into ferro-vanadium and mixed into the steel in one operation, thereby obviating the need to produce ferro-vanadium by a separate procedure. In 1944 the sale of Van-Ex was discontinued because, according to plaintiffs' allegations, defendants' antitrust violations precluded the acquisition of sufficient oxide and ore. It is claimed that defendants refused to sell to the plaintiffs and prevented their securing raw materials elsewhere.

(3) During 1942 the plaintiffs sold substantial quantities of ferro-vanadium, apparently produced by Apex, and of Van-Ex to a Canadian company, Atlas Steels, Ltd. These sales ceased during 1943 because, as alleged, defendants agreed with Electro Metallurgical Company of Canada, Ltd., a wholly owned subsidiary of defendant Union Carbide, and the wartime agent of the Canadian Government for the purchase and allocation of vanadium products to Canadian steel firms, to eliminate Continental from the Canadian market. Pursuant to the agreement Electro Metallurgical Company of Canada refused, while exercising its powers as an agent of the Canadian Government, to purchase for and allocate to Canadian steel makers vanadium products made by the plaintiffs.

(4) During 1943, by threats of reprisals defendants allegedly forced the termination of contractual negotiations between Climax Molybdenum Corporation and the plaintiffs.

(5) In 1944 plaintiffs and Imperial Paper & Color Corporation entered into a contract much like the Apex arrangement above described, but providing in addition for the milling of oxide from vanadium ore. Imperial abandoned this contract before the production stage was ever reached because, according to the allegations, neither Imperial nor Continental was able to secure either ore or oxide with which to work as a consequence of defendants' refusal to sell supplies to them and of their actions which precluded the purchase of the same from other persons.

These five particulars by which defendants' alleged monopoly was purportedly furthered at Continental's expense are given as the reason for plaintiffs' assertion that after 1944 they could no longer operate profitably in the vanadium business. The complaint does not recite any particular activities by the defendants against the plaintiffs after 1944. In summary, plaintiffs complain that defendants conspired and combined to monopolize the production and sale of vanadium oxide and ferro-vanadium; that in pursuance of this monopolistic scheme defendants refused to supply vanadium oxide to the plaintiffs to carry on the business of producing ferro-vanadium; that defendants similarly refused to sell to plaintiffs sufficient vanadium oxide to continue the business of processing, packaging and selling Van-Ex; and that, in the course of their unlawful monopolistic conspiracy, defendants coerced the defection of one of plaintiffs' Canadian customers for ferro-vanadium and Van-Ex, namely, Atlas Steels, Ltd.; and moreover that defendants defeated the efforts by plaintiffs to enter into a successful arrangement with Climax Molybdenum Company for the produc-

tion of ferro-vanadium. The complaint states that, owing to all this,

> "Plaintiffs have lost business; the value of their trade-marks has been diminished; markets and customers which they have obtained in open competition with defendants have been taken away from them; their investments have been lost; the good will attaching to the business of Continental has been impaired—all to the damage of plaintiffs in the sum of Five Hundred Twenty-Eight Thousand Dollars ($528,000)."

This amount the plaintiffs estimate they would have made from their various vanadium ventures had not the defendants committed the above listed acts, as part of their unlawful conspiracy.

At the conclusion of the plaintiffs' case, and also when all the evidence was in, defendants moved for a directed verdict on the ground that there was insufficient evidence to establish the plaintiffs' claim to relief. The court took the motion under advisement but submitted the case to the jury, which reported a verdict for the defendants, with which verdict the trial judge noted his concurrence. Pursuant to this verdict the trial judge, on June 25, 1958, entered his judgment stating that "the plaintiffs take nothing by their complaint and that the same be dismissed and that the defendants have judgment on the verdict against the plaintiffs". It is this judgment which is now before us on appeal by the unsuccessful plaintiffs.

An appellate court reviews judgments, not the reasons which may be given in their support. It is only common sense that if, on the record before us, we determine that

the judgment is correct, it should be affirmed, regardless of the correctness of the reasons which may be given to support it. Suppose that the trial judge had decided to direct a verdict for the defendants. He would, in that event, have entered a judgment to the same effect as the one under review. If we conclude that the trial judge should have granted defendants' motion for a directed verdict, we should affirm the judgment as rendered, whatever errors appellants may convince us were made by the judge during the trial.

This proposition is well settled on the authorities. See *United States v. American Railway Express Co.*, 265 U.S. 425, 435 (1924); *Stroud v. Benson*, 254 F.2d 448, 451 (C.A. 4th, 1958); *Lady Nelson, Ltd. v. Creole Petroleum Corp.*, C.A. 2d, decided January 19, 1961. We think that the Fifth Circuit was quite wrong in *Thurber Corp. v. Fairchild Motor Corp.*, 269 F.2d 841 (1959), in holding that the foregoing rule was required to be modified or rendered inapplicable by the reasoning of the Supreme Court in *Cone v. West Virginia Pulp & Paper Co.*, 330 U.S. 212 (1947). This last-named case dealt with quite a different situation, namely, the power of an appellate court upon *reversal* of the district court where the losing party below had not moved for a judgment n.o.v. or, in the alternative, for a new trial, as provided in Rule 50(b) F.R.C.P. In the present case we propose to *affirm* the judgment of the district court. As late as 1957 the Supreme Court said, in *Jaffke v. Dunham*, 352 U.S. 280, 281 (1957), that, "A successful party in the District Court may sustain its judgment on any ground that finds support in the record," without any suggestion that this

statement had to be modified to meet the reasoning of *Cone v. West Virginia Pulp & Paper Co.*, supra.

In fact, in the situation presented we do not see how we could do otherwise than affirm the judgment under review if we would obey the commands of 28 U.S.C. § 2111 and Rule 61 F.R.C.P. If we conclude that the trial judge should have granted defendants' motion for a directed verdict, it is not apparent how any alleged error at the trial could be deemed to "affect the substantial rights of the parties" within the meaning of both 28 U.S.C. § 2111 and Rule 61. In reaching our decision we shall look not only at all the evidence admitted by the trial judge, but also at all the evidence offered by plaintiffs but excluded below.

In a treble damage action under 15 U.S.C. § 15, it is clear that the plaintiff, in order to make out a claim on which recovery might be had, has the burden of proof to establish the following elements of his case: (1) That the defendant has violated the antitrust laws; (2) that plaintiff has suffered an injury to his business or property susceptible of being described with some degree of certainty in terms of money damages; and (3) that a causal connection exists between the defendant's wrongdoing and the plaintiff's loss. See, generally, Comment, 61 Yale L. J. 1010, 1011-28 (1952). Although in the instant case the defendants challenged the sufficiency of the evidence as to the three elements of the plaintiffs' case, we shall first direct our analysis to the third element, the sufficiency of the evidence as to causation, because defendants' strongest argument seems to us to apply here. Of course, a failure by the plaintiffs to prove any one of the three ele-

ments of their case would require the trial judge to direct a verdict for the defendants.

For present purposes we shall assume that the evidence was adequate to support a jury finding that the defendants committed the violations of the Sherman Act claimed, and that the defendants did the acts mentioned as part of a plan to monopolize the marketing of ferro-vanadium. Our problem is to determine whether or not the evidence could have justified jury findings that defendants' alleged illegal acts were in fact the cause of the plaintiffs' failure in various adventures into the business of producing and selling ferro-vanadium and Van-Ex. We have come to the conclusion that the evidence offered by the plaintiffs was insufficient to justify a jury verdict that this necessary causal relation existed, and therefore that the trial judge should have directed a verdict for the defendants.

As the First Circuit recognized in *Momand v. Universal Film Exchanges, Inc.*, 172 F.2d 37, 42-43 (1948):

> "The degree of certainty required of a plaintiff in proving causation of damages is necessarily elastic. It varies with the nature of the case. Particularly in an anti-trust suit, covering as it must many imponderables, rigid standards of precise proof would make a plaintiff's task practically hopeless.
>
> . . .
>
> "To sum up: It is well appreciated that a plaintiff has a difficult task in anti-trust suit and that adherence to strict requirements of proof as to exact quantity of damage may deprive him of the substance of his rights. The law has gone far to ease that burden by permitting proof of losses which border on the

speculative, in order to implement the policy of the anti-trust laws. But a fair degree of certainty is still essential to show the causative relation of defendants' misconduct and plaintiff's injury."

No doubt, a plaintiff's difficulties of proof may be somewhat mitigated by a rule much akin to the doctrine of *res ipsa loquitur:* where the plaintiff proves a loss, and a violation by defendant of the antitrust laws of such a nature as to be likely to cause that type of loss, there are cases which say that the jury, as the trier of the facts, must be permitted to draw from this circumstantial evidence the inference that the necessary causal relation exists. *Bigelow v. RKO Radio Pictures, Inc.*, 327 U.S. 251 (1946). See also *Eastman Kodak Company of New York v. Southern Photo Materials Co.*, 273 U.S. 359 (1927); *Story Parchment Co. v. Paterson Parchment Paper Co.*, 282 U.S. 555 (1931). See *Martin v. Herzog*, 228 N.Y. 164, 170-171, 126 N.E. 814, 816 (1920).

But we are not sure that *Bigelow v. RKO Pictures, Inc.*, supra, is applicable in the instant case. Appellants have complained of the loss of a few named, specific, business arrangements rather than a general loss inflicted by the defection of countless, individual customers. Direct evidence of causation was readily available to Continental, while in the case cited such direct evidence was practically impossible to come by. See, generally, Clark, "The Treble Damage Bonanza: New Doctrines of Damages in Private Antitrust Suits," 52 Mich. L. Rev. 363 (1954). Yet, even if the *Bigelow* decision could be enlisted to serve appellants' purposes, it was still incumbent upon them to show on the trial that their reiterated lack

of supplies was the result of defendants' refusals to deal with them and of defendants' efforts to prevent them from obtaining raw materials elsewhere. See *Royster Drive-in Theatres, Inc. v. American Broadcasting-Paramount Theatres, Inc.*, 268 F.2d 246, 251 (C.A. 2d, 1959), cert. denied 361 U.S. 885 (1959); *Standard Oil Company of California v. Moore*, 251 F.2d 188, 198 (C.A. 9th, 1958); *Congress Bldg. Corp. v. Loew's, Inc.*, 246 F.2d 587, 596-98 (C.A. 7th, 1957); *Milwaukee Towne Corp. v. Loew's, Inc.*, 190 F. 2d 561, 568 (C.A. 7th, 1951). This evidence is necessary in order to connect the asserted antitrust infractions with the alleged scarcity of supplies. Without such a connection, the *Bigelow* case does not come into play, for the requisite likelihood that defendants' actions caused plaintiffs' injuries is not sufficiently established to justify use of the *Bigelow v. RKO Pictures, Inc.*, supra, 327 U.S. 251, inference.

First, regarding the contract with Apex above referred to: Here, as elsewhere, the plaintiffs should have produced enough evidence to warrant a jury finding that defendants refused to sell to them and dried up other sources of raw materials.

The contract between Apex and Brignoud was executed on July 1, 1938, but it was not until the latter part of 1940 that Apex was actually ready to manufacture ferrovanadium. Between the date of the execution of the contract and April, 1940, Apex was busy seeking technical assistance from Brignoud, a task made exceedingly difficult by the growing Nazi belligerence on the other side of the ocean. This assistance was needed to determine how much aluminum should be used in the alumino-

thermic method of vanadium reduction; in other words, the amount of aluminum which, when used in the smelting process, would produce the best recovery of metallic vanadium from oxide. During this experimental period, plaintiffs made their first request for the purchase of raw materials from the defendants.

In May, 1939, and again in July and October, 1939, the plaintiff Henry J. Leir, through the Continental Ore Corporation, sought to purchase from defendant Vanadium Corporation of America certain quantities of oxide. Although these various efforts were turned down by that defendant, it is clearly in evidence that during July and August, 1939, another defendant, Electro Metallurgical Sales Corporation, a wholly owned subsidiary of defendant Union Carbide, sold to the plaintiffs 16,000 pounds of oxide. In 1939 Apex was not ready to begin making ferro-vanadium and so did not call for any oxide from Continental. The oxide which plaintiffs acquired in 1939 was sold either on the export market or to non-associated buyers in the United States. It is clear that the alleged lack of oxide during 1939 could have no bearing on the ultimate unsatisfactory outcome of the Apex agreement. What Continental wanted in 1939 was oxide to sell abroad at export prices, not oxide to be delivered to Apex for its ferro-vanadium plant, which could not use it yet.

In 1940 the story is much the same. In March Apex did make one approach to Vanadium Corporation of America seeking to buy oxide. Vanadium replied that it had no material to offer Apex at that time. Even so, during the period between September and December, 1940, Apex having first begun in August of that year to pro-

duce ferro-vanadium, Continental sold 28,000 pounds of vanadium oxide to others than Apex, which it would certainly not have done had there been a shortage either at that time or to be anticipated in the near future. If such a shortage did exist, it is hard to understand why Apex turned down proffered arrangements with the Blanding mine or with Morrison, both of which could have furnish Apex a considerable quantity of oxide. We cannot by any stretch of the imagination come to the conclusion that the refusal of Vanadium Corporation of America to sell oxide to Apex in March, 1940, contributed to a shortage of supplies at its plant.

Nor was the situation much different during 1941. We note that during that year nobody on the plaintiffs' side made any offer to buy oxide from defendants. Rather, plaintiffs wrote to defendants seeking from them offers for sale. The last of these letters was written in June, 1941, to defendant Electro Metallurgical Sales Corporation, which failed to answer. It is also in evidence that during 1941 Continental continued the practice of selling oxide indiscriminately.

Though no overtures were made to any defendant during 1942 concerning the possible purchase of oxide or ore, it is in evidence that an Apex supplier, Nisley & Wilson, sold 10,000 pounds of oxide to Vanadium Corporation of America in February of that year because Apex was unable to take that shipment owing to a fire in its ferro department.

It was not until June, 1942, that Apex canceled its joint venture arrangement with Brignoud allegedly because of the shortage of oxide resulting from plaintiffs' inability

to buy supplies from defendants and from defendants' action in preventing Apex from obtaining raw materials from other producers. As noted previously, when rejections by defendants to deal with the plaintiffs are the crux of treble damage actions under the antitrust laws, it is clearly required that the plaintiffs must show that they offered to buy and that the defendants did not sell to them. Even assuming that the failure to make offers to sell in response to plaintiffs' inquiries amounted to a refusal to deal, the last request was made a year before the alleged lack of supplies is claimed to have caused Apex to end its relationship with the plaintiffs. We hold, under the cases cited pages 8-9, *supra*, that the failure of Apex or of Continental to try to buy oxide from the defendants during the final and most critical period in the life of the Apex contract made it impossible for the jury to find that defendants' refusals to deal caused Apex to terminate the arrangement with Brignoud. In regard to the Apex venture, the judgment below is affirmed.

We come now to the plaintiffs' efforts to market the Van-Ex compound. Some Van Ex had been made by Apex before relations with Brignoud finally came to an end in July, 1942. But most of this product was manufactured by Continental in rented premises in Long Island City, New York. According to the allegations of the complaint, the sales of Van-Ex were completely stopped in 1944 for the reason that, because of the defendants' wrongdoing, Continental was never able to secure sufficient supplies of raw materials to stay in business. The defendants contended that the manufacture of Van-Ex really stopped in 1943, when Continental sold its pebble mill.

The complaint itself is somewhat confusing as to why the Van-Ex business fell off. One paragraph states that the cause of this disaster was the inability of the plaintiffs to secure raw materials through defendants' wrongful acts. Another paragraph asserts that the plaintiffs were shouldered out of the vanadium field, and specifically out of Van-Ex, by defendants' interference with Continental's primary customer for Van-Ex, Atlas Steel, Ltd., of Canada. Defendants are accused of preventing Atlas from securing Van-Ex from Continental. It seems obvious that, if lack of supplies was really the cause of Continental's undoing with regard to Van-Ex, the loss of Atlas as a customer would become irrelevant, for the absence of customers cannot hurt a seller who has nothing to sell. On the other hand, if the defection of Atlas was the cause of Van-Ex's demise, the alleged lack of supplies could have had no relevance, for an abundance of goods is of no use to a seller who lacks customers.

As to the lack of supplies needed to produce Van-Ex, the plaintiffs once again have the burden of introducing sufficient evidence to warrant the inference that they were unable to obtain oxide from the defendants or from anybody else.

The Van-Ex venture must be viewed against the background of wartime regulations and procedures. Metals Reserve Company (hereinafter MRC) was formed by the United States Government in the early months of 1942 to insure that vanadium for the war effort would be readily available when needed. MRC named defendant United States Vanadium Corporation its agent to carry out the appointed task. MRC and United States Vana-

dium Corporation had three plants at their disposal for milling oxide from ore, one run by the latter at Durango, Colorado, one by Vanadium Corporation of America at Monticello, Utah, and, toward the end of 1942, the Nisley & Wilson mill at Gateway, Colorado. These three plants processed ore furnished by United States Vanadium Corporation as agent for MRC, and the oxide produced was turned over to MRC for a fee or "toll" on each pound.

The oxide accumulated by MRC in this manner was then sold to private interests, provided the prospective buyer could receive an allocation from the War Production Board. There is no evidence that Continental had any trouble obtaining such allocations. By the end of 1943 MRC to all intents and purposes had stopped functioning. At that time the Manhattan Project, designed to make the first atomic bomb, began operations. Since uranium comes from the same ore as vanadium, control over vanadium ore was assumed by the Manhattan Project. So far, however, as can be inferred from the record, the manipulations by the Manhattan Project and by its agent, Union Mines Development Company, a wholly owned subsidiary of defendant Union Carbide, did not come into play until after the Van-Ex project had come to an unsuccessful close.

In March, 1943, Continental was granted an allocation for 20,000 pounds of oxide from the War Production Board. MRC supplied 10,000 pounds and the balance was purchased from the defendant Electro Metallurgical Sales Corporation. In making this purchase from Electro, Continental squabbled somewhat over the price but eventually the sale was made at the price offered by Continental.

Later in the same year Continental asked defendants Electro Metallurgical Sales Corporation and Vanadium Corporation of America for contracts under which it could buy from them a certain amount of oxide each month over a prolonged period, but the requests were turned down. Again, we must assume that the denial of these requests for contracts amounted to a refusal to deal with the plaintiffs.

None the less, appellants failed to show that defendants prevented them from buying raw materials from an independent supplier, namely, Nisley & Wilson. Late in 1942, at the beginning of that firm's toll agreement with MRC, some of its production was earmarked and sent to Continental through MRC. These shipments apparently stopped early in 1943. In the spring of that year MRC entered into a contract with Continental under which the production of Nisley & Wilson, or a part of it, would be shipped to Continental from time to time. In June 17,000 pounds of oxide were ready, but Continental did not wish to buy for the reason that the oxide was in lumps and Continental needed material more finely ground. Continental had bought these lumps from Nisley & Wilson in the fall of 1942 but did not want them in the summer of 1943. This may have been because Continental had sold the pebble mill which it had begun to operate in Long Island City in 1942. Moreover, because in the summer of 1943 Nisley & Wilson could not have produced oxide in forms smaller than the lumps unacceptable by Continental, the latter canceled its contract with MRC.

In October, 1943, Nisley & Wilson foresaw the end of its toll agreement with MRC and installed a flaking ma-

chine. It could now produce oxide in flakes rather than in lumps. Continental was advised of the new acquisition and a sample of oxide in the new form was submitted. Continental replied that the flakes were just what the doctor ordered, but made no effort to secure Nisley & Wilson's product. Plaintiff's witness Martin Wolf testified that this was because Continental did not know that the toll agreement was about to expire and thought that it would not be able to get anything from MRC which, says Continental, was controlled by its agent United States Vanadium Corporation. Nisley & Wilson shut down in January, 1944. It had on hand a stockpile of about 300,000 pounds of oxide which it tried to sell to Continental in the spring of 1944. Again Continental refused to buy.

We think this failure to deal with Nisley & Wilson during the Van-Ex period precludes Continental from arguing that defendants prevented the acquisition of raw materials at that time. As to Apex, appellants failed to show their inability to get oxide from defendants. With regard to Van-Ex, they failed to show that it was impossible for them to obtain supplies from an independent producer.

As to the alternative allegation, that the loss of the Van-Ex business was caused by the defendants' interference with Canadian buyers, principally Atlas Steels, Ltd., we cannot ignore the fact that Electro Metallurgical Company of Canada, Ltd., had been appointed by the Canadian Government to act as its agent in purchasing Van-Ex for Canadian steel makers. The Canadian Government established a regulation under which no vanadium oxide

(including Van-Ex) could be imported into Canada by anybody other than its agent, and Electro Metallurgical Company of Canada, Ltd., refused to purchase Van-Ex from the plaintiffs. Thus, even if we assume that Electro Metallurgical Company of Canada, Ltd., acted for the purpose of entrenching the monopoly position of the defendants in the United States, it was acting as an arm of the Canadian Government, and we do not see how such efforts as appellants claim defendants took to persuade and influence the Canadian Government through its agent are within the purview of the Sherman Act. See *Eastern Railroad Presidents Conference v. Noerr Motor Freight, Inc.*, decided by the Supreme Court February 20, 1961.

We now refer briefly to the two remaining allegations of the complaint designed to show that the defendants' illegal acts caused a failure of the plaintiffs to compete successfully in the ferro-vanadium field.

During 1943, by threats of reprisals made by one M. D. Arrouet, defendants allegedly forced the termination of contractual negotiations between Climax Molybdenum Corporation and the plaintiffs. The trial judge excluded all evidence dealing with the alleged threats of reprisal; therefore we look to appellants' offer of proof to determine what the story was. Appellants offered to demonstrate that Mr. Arrouet was a highly placed representative of defendants Union Carbide group. It is admitted that he was not an officer of any of the defendants, but it is alleged that his threats of reprisals ought to bind Union Carbide and Electro Metallurgical Company. Appellants' offer of proof would show that Arrouet threatened that if Climax undertook the manufacture of ferro-

vanadium for Continental, the defendants would enter the industry as a reprisal against Climax.

For present purposes we shall assume that Arrouet said what appellants say he said, and we shall also assume that his statement is to be considered the statement of those defendants in the Union Carbide group. The difficulty with appellants' position in this regard is that the record contains no evidence of the nature of the alleged pending negotiations with Climax. There had been, in February, 1943, an earlier arrangement between Continental and Climax, which it appears was completed. By the end of April, 1943, Continental had shipped the agreed poundage of vanadium oxide to Climax, and Climax had converted this material in accordance with its part of the bargain. This earlier transaction stands alone in the record as the only connection between Climax and Continental. Thus even if Continental and Climax were threatened with reprisals, the evidence does not reveal the result of such threats. On the basis of the evidence in the case, the threat of reprisal appears to be one directed against a corporation with which Continental had no business, since the nature and existence of the alleged "pending negotiations" are not shown by the record. Appellants have thus failed to show any injury resulting from the alleged threats. There must be an injury, together with a wrong and a causal connection between the two, before liability can result.

The remaining instance given in the record is the so-called Imperial venture. On January 4, 1944, Continental Ore Corporation and Imperial Paper & Color Corporation, incorporated in New York, entered into a contract

calling for the manufacture of vanadium products. Continental was appointed the exclusive sales agent for these products. Imperial was to pay Continental a commission on all sales made. Imperial was also to install the necessary equipment and give Continental the first opportunity to supply Imperial's total requirements for raw materials. Imperial had some raw materials of its own as by-products of its other business. The Continental-Imperial contract was made contingent upon the decision of Imperial to manufacture vanadium from other raw materials than its chromite by-products. If Imperial should decide not to enter this new field of production, the contract was to become null and void.

This is exactly what transpired. In December, 1944, Imperial wrote Continental that it was not yet willing to begin the manufacture of ferro-vanadium as called for in the contract between them. It is clear from this letter that Imperial was worried over the sources of supply of vanadium-bearing raw materials. Similar letters from Imperial to Continental were written on April 9, April 13, and May 11, 1945. Sometime during 1945 Imperial decided not to go into the ferro-vanadium venture with Continental and chose to exercise its right under the contract to call the agreement off. The arrangement never got started. Imperial did not install the necessary equipment and no ferro-vanadium was produced.

The various communications from Imperial to Continental show clearly that Imperial was dissuaded from entering this field because of the lack of sources of raw material. It is the appellants' position that they could not get a steady, uniform supply of raw materials because of

defendants' alleged antitrust infractions. There is a great deal of evidence showing that various sources of vanadium other than vanadium oxide mined on the Colorado plateau were available to Continental during the life of the Imperial contract. These included lead vanadate from Africa, vanadium ash from Peru, flue dust from ocean-going vessels burning certain Venezuelan and Mexican oils, and something called cuprodescloizite ores. Mr. Wolf, the vice-president of Continental, testified that it would be almost impossible to produce vanadium from these raw materials unless they could be gotten in a steady and uniform manner. Be that as it may, the evidence in regard to the period of the Imperial venture shows the failure on the part of appellants to offer to buy raw materials from the defendants. As we have observed in regard to the Van-Ex venture, both Electro Metallurgical Sales Corporation and Vanadium Corporation of America turned down requirements contracts with Continental late in 1943. At this time the supplies of Nisley & Wilson were available to Continental and were not procured from that firm. The Imperial contract was entered into in January, 1944, and cancelled sometime in 1945. Yet from the end of 1943 until 1946, when Electro Metallurgical Sales Corporation gave Continental a requirements contract for vanadium oxide, appellants made no move to obtain the allegedly necessary steady and uniform source of supply from any of the defendants. This is much like the Apex situation except that here there were no offers to buy during the entire life of Continental's arrangement with Imperial. Surely Continental cannot complain that the defendants did it wrong when it cannot show that it sought

to alleviate its situation by seeking supplies from the defendants at any time during the life of the Imperial venture.

A judgment will be entered affirming the judgment of the District Court.

(Endorsed) Opinion Filed March 22, 1961.

Frank H. Schmid, Clerk.

Appendix B

United States Court of Appeals
For the Ninth Circuit

No. 16,149

Continental Ore Company, et al.,
Appellants,
vs.
Union Carbide and Carbon Corporation,
Appellees.

Appeal from the United States District Court for the Northern District of California, Southern Division.

This Cause came on to be heard on the Transcript of Record from the United States District Court for the Northern District of California, Southern Division and was duly submitted.

On consideration whereof, It is now here ordered and adjudged by this Court, that the judgment of the said District Court in this Cause be, and hereby is affirmed, with costs in favor of the appellees and against the appellants.

It is further ordered and adjudged by this Court that the appellees recover against the appellants for their costs herein expended, and have execution therefor.

(Endorsed) Judgment filed and entered March 22, 1961.
Frank H. Schmid, Clerk.

Appendix C

United States Court of Appeals
For the Ninth Circuit

Excerpt from Proceedings of Monday, May 15, 1961.

Before: Magruder, Merrill, Circuit Judges, and Solomon, District Judge.

On consideration thereof, and by direction of the Court, IT IS ORDERED that the petition of appellants filed April 21, 1961, and within time allowed therefor by rule of court, for a rehearing of above cause be, and hereby is, denied.

Appendix D

Section 1. Sherman Act

July 2, 1890, Chap. 647, Sec. 1, 26 Stat. 209; August 17, 1937, Chap. 690, Title VIII, 50 Stat. 693; July 7, 1955, Public Law 135, 84th Congress, 1st Session; 15 U.S. Code, Sec. 1.

Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is hereby declared to be illegal: . . .

Section 2. Sherman Act

July 2, 1890, Chap. 647, Sec. 2, 26 Stat. 209; July 7, 1955, Public Law 135, 84th Congress, 1st Session; 15 U.S. Code, Sec. 2.

Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by fine not exceeding fifty thousand dollars, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court.

Section 4. Clayton Act

October 15, 1914, Chap. 323, Sec. 4, 38 Stat. 731; 15 U.S. Code, Sec. 15.

Sec. 4. Any person who shall be injured in his business or property by reason of anything forbidden in the antitrust laws may sue therefor in any district court of the

United States in the district in which the defendant resides or is found or has an agent, without respect to the amount of controversy, and shall recover threefold the damages by him sustained, and the cost of suit, including a reasonable attorney's fee.

CONSTITUTION OF THE UNITED STATES
AMENDMENT VII—CIVIL TRIALS

In Suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved, and no fact tried by a jury, shall be otherwise reexamined in any Court of the United States, than according to the rules of the common law.

28 U.S.C., Section 2072, Fed. Rule Civ. Pro. 50(b):

Section 2072. Rules of civil procedure for district courts.

The Supreme Court shall have the power to prescribe, by general rules, the forms of process, writs, pleadings, and motions, and the practice and procedure of the district courts of the United States and of the District Court for the Territory of Alaska in civil actions.

Such rules shall not abridge, enlarge or modify any substantive right and shall preserve the right of trial by jury as at common law and as declared by the Seventh Amendment to the Constitution.

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Federal Rule of Civil Procedure, 50(b) provides:

Rule 50.—MOTION FOR A DIRECTED VERDICT

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(b) *Reservation of decision on motion.* Whenever a motion for a directed verdict made at the close of all the evidence is denied or for any reason is not granted, the court is deemed to have submitted the action to the jury subject to a later determination of the legal questions raised by the motion. Within 10 days after the reception of a verdict, a party who has moved for a directed verdict may move to have the verdict and any judgment entered thereon set aside and to have judgment entered in accordance with his motion for a directed verdict; or if a verdict was not returned such party, within 10 days after the jury has been discharged, may move for judgment in accordance with his motion for a directed verdict. A motion for a new trial may be joined with this motion, or a new trial may be prayed for in the alternative. If a verdict was returned the court may allow the judgment to stand or may reopen the judgment and either order a new trial or direct the entry of judgment as if the requested verdict had been directed. If no verdict was returned the court may direct the entry of judgment as if the requested verdict had been directed or may order a new trial.

Appendix E

PLAINTIFFS' EXHIBIT 51 FOR IDENTIFICATION

(Excluded by the Trial Court)

COPY

U. S. Vanadium Corporation, New York City.

Mr. F. P. Gormely, March 25, 1936.
Room 1715, Building.

Messrs. F. H. Haggerson, VANADIUM SITUATION
W. H. Sneath, Vanadium Corp. of America.
J. M. Price.

Dear Mr. Gormely:

On Monday I had a talk with Mr. Bransome and Mr. Rees of the Vanadium Corporation of America in reference to the purchase of some of the equipment now at their Naturita Plant for use in our Paradox Valley Plant at Uravan. Previous conversations in regard to the use of the Naturita Plant were reviewed by Mr. Rees and myself for the benefit of Mr. Bransome.

It was then brought out that we had selected the Uravan Plant site for purely economic reasons. I explained that Uravan was 15 miles closer to rail at Grand Junction, which railroad point enabled us to use the new Dolores River road, thereby shortening the hauling on finished product and supplies. Also, the Uravan site was more central to our ore supply, and the saving in hauling alone would, practically, build the plant. I further explained that with our manufacturing process as it had been developed, the Naturita Plant would have to be entirely rebuilt with the exception of the single roaster installation. I stated that there was some of the equipment in the Natu-

rita Plant which we could use, and would be glad to consider its purchase; also, such ore supplies as they had available.

The outcome of this discussion was that at the present time the Vanadium Corporation of America would not consider dismantling their Naturita Plant and would keep their investment intact. They would consider the leasing of the Plant or an outright sale. This subject was not discussed further, because the Naturita site is not desirable for economic reasons, and the fact that the Vanadium Corporation of America have an exalted idea of the value of the Naturita Plant, regardless of the operating failure they have already experienced.

The discussion then turned to the vanadium situation in general. Mr. Bransome stated a reduction in price of V in ferrovanadium is indicated, but that a small reduction would do no good; and that their cost of producing vanadium was so high a considerable reduction could not be made. I asked him what he thought would be a "considerable reduction", and he said to $2.25 or $2.10 per pound. He went on to say that with the fused oxide costing him 80¢ per pound there was little profit in vanadium at the present prices. It developed when he was roughly casting up these figures, that in their present practice it requires 2.2 lbs. of V_2O_5 to make 1 lb. of V in ferro.

Mr. Rees is the Vice President of the Vanadium Corporation of America, and a Mining Engineer. He is responsible for the Peruvian operation. He told Mr. Bransome that our costs at Rifle were between 60¢ and 70¢ per pound of V_2O_5, and assumed it as being 65¢. With this assumption he considered 80¢ per pound was about

as cheap as we could be expected to sell fused oxide from our present stocks. I stated that the Rifle production was, probably, cheaper than the Peruvian production in any case—to which he made no reply.

In regard to the Peruvian production I said it was evident they had resumed operations in Peru, judging from the amount of concentrates they had been importing over the last few months, which amounted (up to February 1st) to 709 tons containing an equivalent of, approximately, 230,000 pounds of V_2O_5 in fused oxide.

Mr. Bransome stated in answer to this that they had resumed operations in Peru on a reduced scale and expected to continue this production all this year. He said the object of this operation was so he could find out exactly what the production cost; that some economies were being put into effect; and that the figures of the past operation were not clear, and he was finding out the facts for himself. The same crew is operating, and Charlie Fritz is still in charge.

Apparently, there has been much discussion between Mr. Bransome and Mr. Rees in reference to a purchase contract with us, because Mr. Rees called to Mr. Bransome's attention the fact that the Rifle production at 65¢ per pound V_2O_5 included a high depletion charge. Mr. Rees said we had purchased the Rifle properties at a relatively high figure and that his estimate was the depletion charge must have been about 25¢ per pound. He further stated that our Paradox Valley investment was relatively small and the depletion charge would, practically, be negligible —so costs at the Uravan operation would be somewhere

between 40¢ and 50¢ per pound. He inferred they could not hope to secure this cost in Peru and, apparently, they have had many discussions about this Peruvian operation, and I am under the impression that Mr. Rees is not in favor of it. I asked how much V_2O_5 they would produce in Peru this year and they replied, probably about 500,000 pounds, but the production would depend upon the success of the operation as they planned it.

Mr. Bransome stated he believed in laying his cards on the table in regard to vanadium production, that he knew he could not fool us, and any other attitude would be foolish to take. He said when he found out what his costs were going to be in Peru, he believed it would be advantageous for all concerned to get together on one production operation. He said that by the time he was ready to discuss this situation we would, probably, know just what our costs would be at the Uravan Plant. Mr. Bransome asked what our costs at that Plant would be. I told him we were in no position to make any definite statement as to this cost at this time, because we were making some changes in the process and were not certain as to how these changes would affect the costs.

Mr. Bransome stated many times that he was very anxious to reduce the cost of V_2O_5 production to a point where a considerable reduction in the sales price of V in FeV could be made. In this respect I said that there seemed to be a difference of opinion as to the advisability of reducing the sales price of vanadium as to its effect upon sales. Mr. Bransome said his contacts with the steel people seemed to indicate that a considerable reduction would stimulate the use of vanadium.

The vanadium production contemplated by the Molybdenum Corporation of America at their Mammoth operation, was discussed and Mr. Bransome wanted to know what I knew about it. I reviewed the Mammoth operation as I knew it—which was to the effect that so far the production of vanadium and molybdenum at the Mammoth had been uncertain and disappointing, but that they planned to build a new mill and could recover, according to my figures, approximately 300,000 pounds V_2O_5 yearly. This production would be in the form of a lead-molybdate and lead-vanadate concentrate containing gold and silver.

I told them that information I had was to the effect that the Molybdenum Corporation had not been very successful in separating the vanadium and molybdenum from these concentrates. Mr. Bransome said that Mr. Hirsch had been to see him a couple of times about reducing these concentrates for him and purchasing the vanadium. Mr. Bransome said he had not been able to find out from Mr. Hirsch how much vanadium product or residue he actually had at present, nor in what form it was—and wanted to know what information I had on this subject. I told him my information was not sufficient to definitely state either the amount or form of the vanadium, but that I thought the vanadium was, at present, in the form of a sodium vanadate slag also containing the molybdenum, and that the molybdenum in the slag equalled about twice the vanadium content. This was the opinion of Mr. Rees also, and he stated his information on this was to the effect that the work so far carried on by the Molybdenum Corporation

on these vanadium-molybdenum concentrates had resulted in a very high cost for recovery of these metals.

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My impression gained from this talk with Messrs. Bransome and Rees was that the Vanadium Corporation is in somewhat of a state of confusion regarding their vanadium production. It is evident that they must obtain a cheaper source of vanadium, and will use as a threat the possibilities at both their Peruvian and Naturita properties in negotiating lower prices with us the latter part of this year.

An interesting fact indicated from this conversation was that, apparently, their process for making ferro-vanadium is not as efficient as ours. It requires 2.2 lbs. of V205 for 1 lb. of V in FeV. We roughly figure 2 lbs. in our process, but the actual experience is approximately 1.9 lb. V205 for each pound of V in ferro.

The actual situation with us in the Paradox Valley is that we estimate we will be able to produce V205 for 40¢ per pound including depreciation and depletion charges, without taking any credit for uranium production. We will, at this operation, produce U308 residue as a by-product--the amount of U308 residue produced will depend upon the ores processed.

We have ores containing a high uranium content and by selective mining we can make this production, approximately, as desired. There is a market in the United States for about 250,000 pounds of U308 yearly--which is mostly imported from Belgium. It is thought that we can readily sell about 100,000 pounds of U308 yearly, principally to

the Vitro Manufacturing Company of Pittsburgh, who have already expressed a desire to purchase their supply from us. The profit on U3O8 should be about $1.00 per pound and with this credit against the vanadium production the cost of V2O5 would be about 30¢ per pound.

There are, also, possibilities with radium in making a low-grade radium sulphate residue as a by-product from the Uravan production; or it is possible to make a uranium-radium residue and be paid for the radium accordingly. This radium production, however, is uncertain and we have not estimated any credits therefrom.

Very truly yours,

ew/J. R. Van Fleet
IC
Extra cc for Mr. Gormely.

PLAINTIFFS' EXHIBIT 62 (Part)

Special Report
Gustav Laub — February 20, 1942

Apex Smelting Company
Chicago, Illinois
Mr. Edward S. Christiansen—Vice Pres.

Mr. Christiansen, Vice President of the above company, whom I have known slightly for sometime, called on me stating that they have decided to go out of the Vanadium business and that they had certain equipment and some small stock of Oxide on hand that they would like to dispose of if we were interested.

He did not have an actual list of the equipment nor of the raw materials they have on hand but from the figures he had it looked as though they have close to 50,000 pounds

of Vanadium Pentoxide containing between 78/87% V205 and about 40,000 to 50,000 pounds of Magnesite.

I told him that we might be interested in the Vanadium Oxide and possibly the Magnesite and some of the equipment which included jaw crushers and miscellaneous equipment. He promised to obtain from their Chicago offices an actual complete list of the equipment they have to offer as well as the quantities and grades of Vanadium Oxide and Magnesite and to deliver these to me the early part of next week. I told him that I would then refer this to the proper parties of our company and that we would probably be interested in the Vanadium Oxide and the Magnesite if their prices were right. He stated that they would be reasonable in their prices and did not expect to make a profit.

Mr. Christiansen further stated that they had been contemplating going out of the Vanadium business for sometime and their definite decision was reached for two reasons. First, that they had a fire in this department of their plant and secondly, that the sales contract which they had with Mr. Leir, President of the Continental Ore Corporation had not worked out very well. Mr. Leir was getting a fifty percent cut on the profits. Mr. Christiansen also stated that they had some agreements with the Shattuck Chemical Company and Niley & Smith for deliveries of Vanadium Oxide and that he would also look into this and advise us of the status thereof.

GL:KSW

Vanadium Corporation of America
Inter-Office Communication

To Mr. E. D. Bransome, President
Subject Apex Smelting Company
Chicago, Illinois

Date March 14, 1942
From Gustav Laub

Inasmuch as the following information has been conveyed verbally this memorandum therefore is for our records.

With reference to the writer's memorandum of February 20th advising that Mr. Christiansen, Vice President of the above company, had informed us that they were going out of the Vanadium business and had offered us their stocks of Vanadium raw materials, equipment, etc. as I had not heard further from Mr. Christiansen in this regard I had Larry Johnson casually contact him by phone and tell him that I had not received the information that he promised to send.

As a result, Mr. Christiansen phoned the writer and stated that in going into the matter further they had run into some legal difficulties. Mr. Leir, President of the Continental Ore Corporation, with whom Apex has an agreement to furnish their entire production of Vanadium, he acting as sales agent, objected strenuously to their breaching their contract and upon referring the matter to their counsel Apex were advised that Mr. Leir had a strong case against them and to make the most satisfactory arrangement with Mr. Leir that they could.

This resulted, Mr. Christiansen advised, in Mr. Leir putting a proposition up to them in that they would produce Vanadium at full capacity for a period of three months after which time he would take over their equipment and raw materials contracts and produce the material himself.

Mr. Christiansen therefore advised that they felt they would be obligated to produce at maximum capacity for a period of three months and had decided to proceed on this basis but that they had not come to a definite conclusion about turning over the equipment and raw materials contracts after that time. The contract with Mr. Leir, he said, extended over the balance of the calendar year.

In event that the second part of Mr. Leir's proposition does not go through Mr. Christiansen stated that they still proposed to offer us such raw materials as they have available as well as plant equipment.

The above information, at your suggestion, was conveyed by phone to Mr. E. K. Jenekes, Assistant Chief, Vanadium Branch, War Production Board.

GL:KHW

Special Report

Gustav Laub April 14, 1942

Apex Smelting Company

Chicago, Illinois

Mr. Edward S. Christiansen—Vice President

With reference to the writer's previous report of February 20th, Mr. Christiansen of the above company called again yesterday stating that they had now gotten their Vanadium situation straightened out and that they had definitely concluded to dismantle their Vanadium plant

at once and go out of the Vanadium business permanently. The equipment from their plant is now for sale. He doubted whether there would be much of the equipment that might interest us but said that the list of same would be sent to us promptly.

Mr. Christiansen stated that they had finally been able to come to an agreement with Mr. Leir of the Continental Ore Corporation, with whom they had a 14 year contract, to cancel the same. By doing so it was necessary for them, he said, to produce only enough Ferro Vanadium to complete two open orders which Mr. Leir had on his books and to continue producing Vanex (a mixture of Oxide and Aluminum which they have been supplying) up through June after which time they would be completely out of the Vanadium picture. Mr. Christiansen further stated that their contract and dealings with Mr. Leir had not proven at all satisfactory to them and that they regretted ever having gone into the business.

He further stated that he would furnish us with the names of all of their suppliers of Ores and Oxide; the principal ones apparently being Shattuck Chemical Company, and Nisley & Wilson. He appeared to be most anxious that we obtain these raw materials rather than the possibility of Mr. Leir's getting them and continuing in the Vanadium business.

We had an interesting discussion concerning low copper grained aluminum which they produce and release with necessary priority approval and I therefore turned him over to our Purchasing Department with regard to this item.

G. L.

ESC

Appendix F

ERRORS RAISED TO COURT OF APPEALS

(a) Alleged Errors as to Instructions

1. The trial court erroneously instructed the jury that proof of injury to the plaintiffs was not sufficient to warrant recovery under the antitrust laws, but that plaintiffs must, in addition, prove that the violation of the antitrust laws involved was reasonably calculated to prejudice the public interest by unduly restricting the free flow of interstate commerce, and that even if the jury should find that there were acts of defendants directed at plaintiffs alone, this was not sufficient. (Tr. 2035-2036.) This instruction was based on the Ninth Circuit Opinion in *Klor's Inc. v. Broadway Hale Stores, Inc.* (9 Cir. 1958) 255 F.2d 214, which was reversed by this Court in 359 U.S. 207 (1959).

2. The Court erroneously instructed the jury that individual business judgment was a defense to violation of the antitrust laws without qualifying this instruction by adding "in the absence of a conspiracy" or "in the absence of a purpose to create or maintain a monopoly". (Tr. 2028-2029.) This was alleged to be in conflict with this Court's Opinion in *Lorain Journal Co. v. United States*, 342 U.S. 143 (1951), and the opinion of the Ninth Circuit in *Fox West Coast Theatres Corp. v. Paradise T. Bldg. Corp.* (9 Cir. 1958) 264 F.2d 602.

3. The Court erred in not telling the jury, in answer to the question addressed to the Court by the jury, that if 95% of the sources of supply held by defendants was acquired pursuant to a conspiracy to achieve that end,

that this fact standing alone was a violation of the antitrust laws, and by not informing the jury that the antitrust laws condemn such power if it is held by one company or if held by two companies pursuant to an agreement to achieve the monopoly. (Tr. 2048-2050.) Appellants claimed that the opinion of the Second Circuit in *United States v. Aluminum Co. of America* (2 Cir. 1945) 148 F.2d 416, as approved by this Court in *American Tobacco Co. v. United States*, 328 U.S. 781 (1946) was controlling.

4. The Court erred in giving an instruction that the defendants were immune from antitrust violations as to any actions taken in the scope of their duties on behalf of the Government of the United States or on behalf of one of its agencies or services, and that said actions could form no proper part of plaintiffs' proof of conspiracy to monopolize or restrain trade in the case. (Tr. 2033.) Plaintiffs claimed this instruction to be in conflict with this Court's opinions in *American Tobacco Co. v. United States, supra; United States v. Socony-Vacuum Oil Co.*, 310 U.S. 150 (1940); *State of Georgia v. Pennsylvania*, 324 U.S. 439 (1945), and the decisions of various Circuit Courts.

5. The Court erred in instructing the jury without qualification that plaintiffs had to prove with reasonable certainty that they would have had vanadium products to sell and would have sold them at a profit, and, further, that plaintiffs had an obligation to accept all offers of vanadium oxide at prices which would not have permitted them to operate at a profit. (Tr. 2032, 2034.) It was claimed by appellants that these instructions imposed a

greater standard of proof than required under the facts of the case and under the decisions of this Court in *Story Parchment Co. v. Paterson Parchment Paper Co.*, 282 U.S. 555 (1931); *W. M. Montague & Co. v. Lowry*, 193 U.S. 38 (1904) and the current decisions in *Gamco, Inc. v. Providence Fruit & Produce Bldg.* (1 Cir. 1952) 194 F.2d 484; *American Federation of Tobacco Growers v. Neal* (4 Cir. 1950) 183 F.2d 869.

6. The Court erred in not giving an instruction that a conspiracy to refuse to deal is illegal per se. (Tr. 2028; Instr. No. 10, Tr. 54.)

7. The Court erred in giving instructions as to damages in conflict with this Court's opinion in *Bigelow v. RKO Radio Pictures*, 327 U.S. 251 (1946). (Pls.' Proposed Instructions Nos. 15, 16, 17, 19, 20, 21, 22 and 24, Tr. 58-65, 67.)

(b) Alleged Errors as to the Exclusion of Evidence by the Plaintiffs

1. The Court erred in excluding evidence of the defendants' net sales, total cost of net sales, and profit before federal income and excess profits taxes pertaining to vanadium, uranium and their respective compounds for the period January 1, 1933 to and including December 31, 1947. These figures were tabulated by the defendants themselves in answer to plaintiffs' interrogatories and are set forth in Pls.' Ex. 20 for Identification. (Tr. 129-130, 134.) The admissibility of profit figures of defendants was alleged to be required by this Court's opinion in *American Tobacco Co. v. United States*, *supra*.

2. The Court erred in excluding evidence offered by plaintiffs to show the origin, nature, scope and purposes

of the alleged conspiracy between defendants. The exhibits offered related to the period prior to 1938 but were offered to show the origin of the conspiracy between defendants to control the vanadium industry which began prior to 1938 and continued after 1938 through the period for which plaintiffs claimed damages. The offer of proof as to the pre-1938 documents appears at Tr. 422-433. See Pls.' Ex. 47 for Id., Tr. 308-316, 1025-1026, 1447-1452, 1461-1463, 1477-1478; Pls.' Ex. 48 for Id., Tr. 316-318; Pls.' Ex. 49 for Id., Tr. 319; Pls.' Ex. 50 for Id., Tr. 319-320; Pls.' Ex. 51 for Id., Tr. 320-321 (Appendix E herein); Pls' Ex. 52 for Id., Tr. 321-322; Pls.' Ex. 53 for Id., Tr. 323; Pls.' Ex. 54 for Id., Tr. 323; Pls.' Exs. 67A to 67F, Tr. 601-627, 626-627. Plaintiffs claimed that the exclusion of the pre-1938 documentary evidence which corroborated Mr. Burwell's testimony was in conflict with this Court's opinion in *American Tobacco Co. et al. v. United States, supra.*

3. The Court erred in excluding patents held by VCA relating to the direct reduction of vanadium oxide by the use of fluorspar or aluminum in a steel bath, a practice challenged by respondents. The patents were offered as Pls.' Exs. 169 and 170 and were rejected at Tr. 1929-1935.

4. The Court erred in not permitting plaintiffs to prove the elimination of their Canadian business in 1943. The exhibits pertaining to this issue were marked as Pls.' Exs. 80 to 109 for Id. and offered at Tr. 801-840. With the exception of Exhibits 92 and 93, these exhibits are letters or telegrams between Continental Ore and Electromet of New York and Electromet of Canada during 1943 and early 1944 which show that Electromet of

Canada, an affiliate of Union Carbide, would not honor plaintiffs requests to ship Van-Ex or ferro-vanadium to steel companies in Canada. Continental Ore had approximately 12,000 pounds of its Van-Ex available for delivery to Canadian steel mills. However, except for 5,000 pounds shipped directly to Atlas Steels, they were unable to obtain an allocation permit from Electromet of Canada, which had been appointed to handle the allocation of vanadium supplies in Canada by the Canadian Government. The refusals of Electromet of Canada to honor Continental's requests for allocation are contained in Plaintiffs' Exs. 91, 100, 102, 104, 107 for Id. The offer of proof as to the statements of Mr. Arrouet is discussed in this Petition at pages 25-26 and appears at Tr. 813-817, 1008-1012. The identification of Mr. Arrouet and the circumstances of the conference between Mr. Wolf and Mr. Arrouet appears at Tr. 845-851.

The refusal of the Court to allow appellants to introduce this evidence was claimed to be in conflict with *United States v. Sisal Sales Corporation*, 274 U.S. 268 (1927); *Baush Machine Tool Co. v. Aluminum Co.* (2 Cir. 1934) 72 F.2d 236; and *United States v. Aluminum Co. of America*, *supra*, at 439-445.

5. The Court erred in not permitting plaintiffs to introduce evidence as to the extent of damages suffered by plaintiffs. This evidence included plaintiffs' business statements, tabulations showing plaintiffs' success in free allied markets and the expert opinions of plaintiffs. The financial statements of plaintiffs are identified as Pls.' Exs. 121 and 123. (Tr. 1083-1088; 1095-1096.) Plaintiffs' tabulations showing their success in other business lines,

including the sale and distribution of aluminum, barytes, coal derivatives, phosphates and magnesia products, deemed comparable to the sale and distribution of vanadium products for the period 1938-1957 were identified as Exhibits 124, 125 and 126. These were offered and rejected at Tr. 1097-1107.

The trial Court rejected the expert testimony of Mr. Leir at Tr. 1103-1114; it rejected the expert testimony of Mr. Wolf at Tr. 851-867. The rejection of the expert testimony of Dr. L. Vance, Professor of Accounting, University of California, and exhibits offered by him, appear at Tr. 1261-1266, these being Pls.' Exs. 139, 140, 141 for Id.

Appellants urged that this evidence was admissible under *Bigelow*.

(c) Errors in the Conduct of the Trial

Appellants also urged that the Court erred in unduly interrogating plaintiffs' witnesses, unduly commenting on the evidence, unduly interrupting examination and cross-examination of plaintiffs' witnesses with statements, comments and interrogations prejudicial to the plaintiffs' case. The following references were claimed to support this error:

(a) excessive statements that evidence admitted is of doubtful materiality (Tr. 221, 249, 325, 599, 751, 753, 1323, 1324, 1581, 1603, 1621, 1644, 1646, 1656, 1801, 1909-1911, 1924, 1979, 1984);

(b) unduly commenting on or interrogating the witnesses by leading questions, that direct testimony of the exclusion of competition or the elimination of competition by defendants was based on sound or

good business judgment (Tr. 209, 245, 246, 255, 558, 559, 561, 586, 869, 1647, 1709, 1833);

(c) unduly commenting on, or interrogating extensively, as to governmental involvement in some of the matters in issue (Tr. 293, 455, 664, 703, 727, 745, 746, 747, 760, 1080);

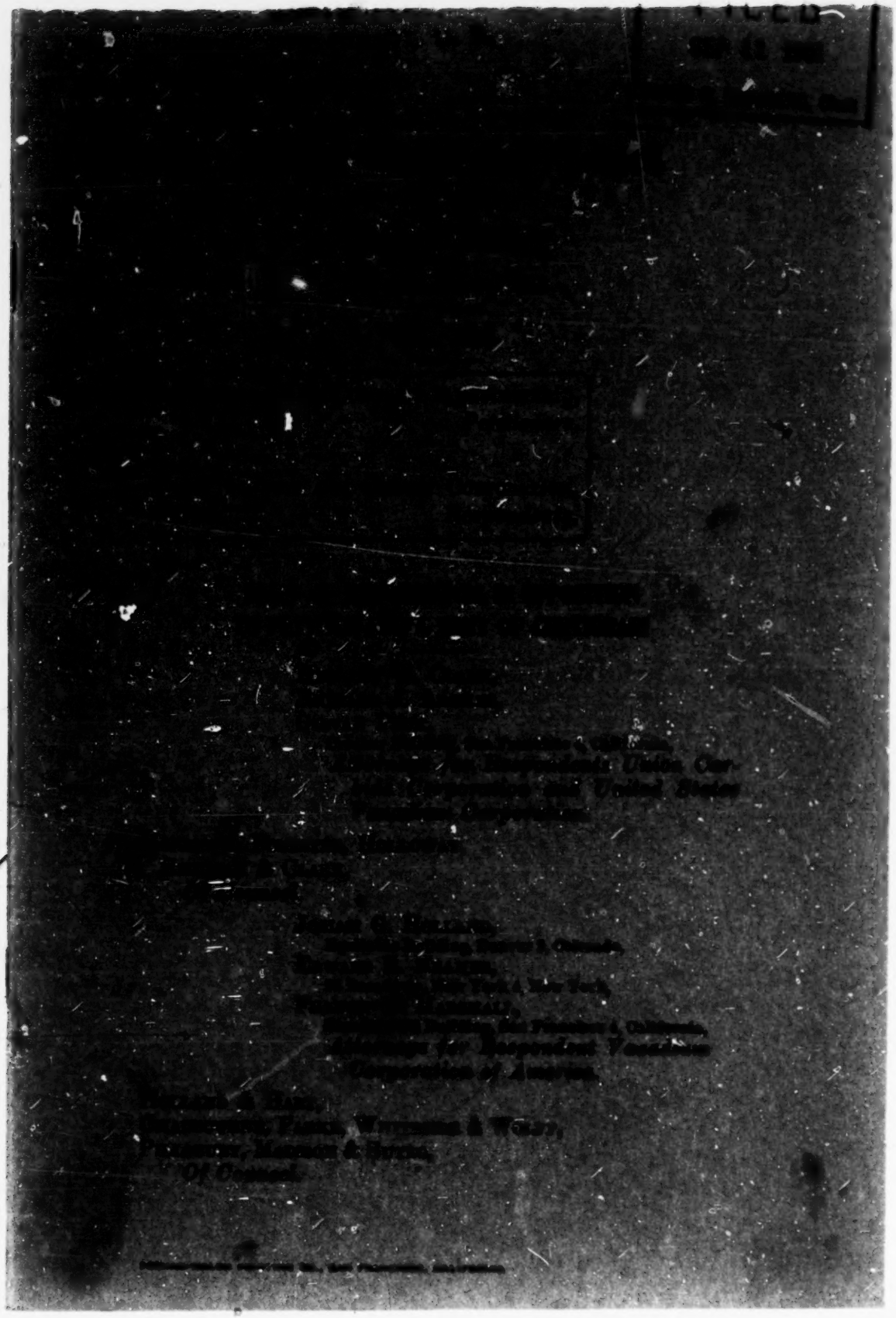
(d) stating in the jury's presence of the need to prove an express formal agreement or formal corporate approval before violation of the antitrust laws may be found (Tr. 563, 611);

(e) commenting favorably on the witnesses of defendants (Tr. 1454, 1455, 1461, 1465, 1487, 1492, 1826), but subjecting plaintiffs' witnesses to undue examination (Wolf, Tr. 956, 971, 978, 980; Leir, 1130);

(f) unduly commenting on an asserted lack of proof by plaintiffs (Tr. 1413, 1414, 1422, 1581, 1804, 1904, 1910-1911, 1962-1963).

(d) Errors by Counsel

Plaintiffs alleged that prejudicial error was committed when counsel for VCA informed the jury in his opening statement that the defendants had been acquitted by a jury in a prior government criminal action. (Tr. 111, 315.) Counsel for plaintiffs had objected to the statement in a prior conference in the Court's chambers. This conference was unreported. (See Tr. 1988 and the trial Court's instruction at Tr. 2037.)



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In the Supreme Court
OF THE
United States

October Term, 1961

No. 304

Continental Ore Company, a partnership, et al.,	*Petitioners,*
vs.	
Union Carbide and Carbon Corporation, et al.,	*Respondents.*

BRIEF OF RESPONDENTS IN OPPOSITION TO PETITION FOR A WRIT OF CERTIORARI

OPINION BELOW

The opinion of the Court of Appeals is reported at 289 F.2d 86 and is reprinted as Appendix A to the petition. The District Court issued no opinion.

QUESTION PRESENTED

The only question presented upon this petition is whether the court below correctly affirmed a judgment for defendants entered upon a jury verdict, upon the ground that plaintiffs wholly failed to prove any injury and therefore no error, if found, could have affected the judgment.

The case is the common one of a failure of proof, where a claim collapses in the face of the claimant's own contemporaneous records. No principle of antitrust law is involved, and there is no conflict of authority.

STATUTES INVOLVED

The statutes involved are Sections 1 and 2 of the Sherman Act and Section 4 of the Clayton Act (cited in full and quoted in Appendix D to the Petition) and in addition the Act of May 24, 1949, Chapter 139, Section 110, 63 Stat. 105 (28 U.S.C. Sec. 2111), together with Rule 61 of the Federal Rules of Civil Procedure (Appendix A hereto).

STATEMENT OF THE CASE

Petitioners brought this suit under the Sherman and Clayton Acts, claiming that they were forced out of the business of producing and selling vanadium by respondents' alleged refusals to sell and respondents' alleged interferences with their other sources of supply.

The action was begun more than 12 years ago on July 15, 1949 (R. 25). It followed, and purported to rely on a

criminal case against the same group of defendants filed on September 2, 1948, entitled *United States v. Union Carbide and Carbon Corporation, et al.*, No. 11678, in the United States District Court for the District of Colorado. On June 4, 1957, however, the Government action was terminated, after a jury trial, by the acquittal of all defendants. No civil suit was brought by the Government at any time.

On June 2, 1958, the present case was brought to trial in the United States District Court for the Northern District of California (R. 110). The defendants in the trial court, respondents here, moved for a directed verdict "on the ground that upon the facts and the law the plaintiff has shown no right to relief" (R. 1989), and the court reserved its ruling on the motion (R. 1989). Thereafter, the jury returned a verdict for the defendants (R. 2051) and the trial court noted its concurrence with such verdict (R. 2052). Judgment was entered upon the verdict (R. 104-05) and plaintiffs appealed (R. 105-06).

Upon appeal to the Court of Appeals for the Ninth Circuit, the "complete record and all of the proceedings and evidence in the above entitled action" were designated by petitioners, and the parties designated for printing the entire transcript of testimony (see Appendix B hereto) and stipulated that all exhibits not printed could be considered on the appeal (R. 2057).[1] Following the submission of briefs and oral argument, the Court requested supplemental "memoranda . . . pointing to every specific place

[1]Thus petitioners' intimation that the court below did not have the complete record before it (Pet. 6) is misleading. Nothing material to the decision was lacking.

in the record where there is testimony or documentary evidence which will show or tend to show" the cause of termination of each of petitioners' ventures in vanadium (Appendix C hereto) and such briefs were furnished by both sides. Thereafter it entered judgment of affirmance on March 22, 1961 (R. 2583). Rehearing was denied on May 15, 1961 (R. 2584).

The Court in its opinion, written by Judge Magruder of the Court of Appeals for the First Circuit, considered all evidence offered, whether it was received or not. It assumed, without attempting to decide, that antitrust violations were proved, but concluded, in the light of the undisputed records and admissions, that petitioners' claims of injuries caused thereby were without basis in fact.

The Vanadium Industry

Vanadium is an alloy used to harden steel. It is found domestically in the same ores as is uranium, in a four-state area known as the Colorado Plateau. The ores are milled into vanadium oxide and the oxide then converted by a smelting process into ferrovanadium, the finished product, which is then added to the steel.

By reason of its competition with other and cheaper alloys, vanadium was a declining industry before World War II (R. 146, 157, 1682). In the early stages of the war, however, it enjoyed a sudden spurt in demand, principally for weapons (R. 160, 189-90, 1526) which in time produced a glut of the material by 1944 (R. 527, 969-70).

The industry was easy to enter. The ore was plentiful (R. 139) and, as petitioners conceded, anyone could find

it, mine it and mill it (R. 1199, 1553). Alternatively, anyone could simply buy vanadium oxide already milled, as petitioners readily discovered, and make ferrovanadium at will.[2]

The Petitioners

Continental Ore Company was a partnership composed of the petitioners Henry J. Leir, his wife, and his mother-in-law. During the period in suit, 1938 to 1949, Continental was engaged in trading in a number of ores and minerals, vanadium being a small part of its activities (R. 1083-86, 1103-04). It hired no metallurgists for its staff (R. 910-11) and invested nothing of consequence in the vanadium industry (R. 1211-15). It sought, during the war shortage, (1) to trade in vanadium oxide and sell it for a profit, (2) to buy vanadium oxide, induce others to process it into ferrovanadium with their capital and facilities and then sell the product, and (3) to buy vanadium oxide, repackage it and sell it under the trade name "Van-Ex" at a price greater than that permitted by the Office of Price Administration. These were the petitioners' activities until 1944, when, the war shortage being over, they lost interest in vanadium and traded in it thereafter only sporadically.

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[2]The falsity of the "monopoly" issue was apparent at trial. Petitioners' witness on the subject, Blair Burwell, a disaffected former officer of a Carbide subsidiary (R. 135, 158, 232-34, 289-90), admitted to being a competitor of respondents (R. 516-18) and to having close financial connections with the petitioner Leir (R. 519, 541-42). The alleged monopoly was never "conceded" or "confessed" as the petition misleadingly states, *passim*, but on the contrary was negatived by the undisputed facts and, indeed, by petitioners' own experience in the industry.

The Respondents

Respondents are Union Carbide Corporation, formerly Union Carbide and Carbon Corporation ("Carbide"), United States Vanadium Corporation, a Carbide subsidiary ("USV") and Vanadium Corporation of America ("VCA"). It was undisputed that VCA and the Carbide group had long been bitter competitors on the Plateau in the vanadium business (R. 491, 504-05, 509). They were leading companies, but 40 or 50 others competed on the Plateau (R. 390) and one of them (Shattuck) had "far more ore than the Vanadium Corporation did" (R. 509). Respondents were, unlike the petitioners, in the vanadium business on a basis of permanent investment and sustained research and development (R. 1689, 145, 328, 1553-55).

Petitioners' Claims of Injury

The claim, as made out in the complaint (R. 3-25), was that respondents frustrated Continental's ventures in the vanadium field in five particulars: the Apex contract, the Van-Ex venture in the United States, the Van-Ex venture in Canada, the Climax contract, and the Imperial Paper contract. The court below in its opinion carefully reviewed each one and concluded that as to each there had been a complete lack of evidence. The gist of the complaint—the claimed inadequacy of petitioners' supplies of vanadium oxide for such ventures—evaporated in the light of petitioners' own records and their own admissions, and the Court could find no evidence of any other cause of injury involving the respondents.

The Apex Contract—1938-1942

Petitioners' first claim was that they could not get adequate supplies for their contract with the Apex Smelting Company (Complaint, para. 33, R. 18).

The contract, made in 1938, provided that Apex was to make ferrovanadium, while Continental secured the raw materials and sold the finished product (Ex. 117, R. 2187-2201, 1050). Apex terminated it in June 1942, the operation having failed for reasons having nothing to do with respondents.

The proof showed that supplies were never a problem. Continental was furnished half its supplies in 1939 by Electro Metallurgical Sales Corporation ("EMS"), a Carbide subsidiary (Ex. U-5-L, R. 1227-30, Ex. 119)[3] but made no further offers to buy from any Carbide company for the next two years.[4] VCA also offered to sell to Continental for export at its export price, but Continental refused the offer.[5]

In 1939 and 1940 Continental was not only rejecting supplies from other suppliers (Ex. U-5-K, R. 2474-84, 1219) but was reselling excess vanadium oxide at a profit to Europe, which it did until an embargo took effect

[3]Omitted from petitioners' table (Pet. 29). Continental chose to order through a man called Poliakoff, but its books show that it paid EMS directly (R. 1228).

[4]Continental made no request in October 1940, as stated in the table (Pet. 29), but rather Apex wrote to say it understood from an EMS salesman that EMS was taking no new accounts (Ex. 128, not printed).

[5]Omitted from petitioners' table (Pet. 29). VCA, as it advised Continental, did not sell domestically through brokers, but it offered to sell at its export price (Ex. 132, R. 2258, 1245, 1966-67).

in July 1940 (R. 1233-34). Even after Apex started to produce commercially in August or September 1940 (R. 1062, 1124, 1234), Continental continued to resell domestically to others than Apex, disposing of some 30,000 pounds of vanadium oxide in late 1940 and early 1941 (Ex. U-5-N, R. 1236-37). Continental's president, the petitioner Leir, testified that he was not concerned about supplies at the time (R. 1237).

Continental at the same time was suggesting that its associate Apex should commit itself to suppliers, but Apex was unwilling. Apex refused offers of supply contracts from Blanding Mines in the fall of 1940 (R. 1153-54, Ex. V-2-I, R. 1698-1700), from the Morrison mill in December 1940 (Ex. V-1-O, R. 1140-42; Ex. V-1-K, R. 2501, 1133), from the Ackerman mill in the spring of 1941 (Ex. V-1-P, R. 1142-45) and from National Vanadium Company in September 1941 (Ex. V-1-Q, R. 2507-13, 1145, Ex. V-1-R, R. 2514-15, 1151, 1152-53). These offers amounted to many times the actual production of Apex (Ex. 119, R. 2212, 1090) and far more than even its planned or paper capacity (R. 856, 1113).

Apex in late 1941 advised petitioners it wanted to terminate the contract, for a series of reasons unrelated to supplies (Ex. V-1-S, R. 1154-57). It then rejected a shipment from Nisley and Wilson (R. 669), and shortly afterwards, in February 1942, stopped shipments altogether (Ex. V-2-E, R. 1283-84), having then on hand some 50,000 pounds of vanadium oxide (R. 1287, 1331, 1342). Leir admitted at trial that further supplies were then available (R. 1175). The only Apex officer who testified (petitioners called none) made clear, as does Apex's own summary in

its final letter, that the Apex termination in June 1942 had nothing to do with supplies; it had merely proved to be a losing and highly unsatisfactory arrangement for Apex (Ex. V-2-B, R. 1187-91, 2520-22, 1287, 1290-91, Ex. V-2-G, R. 1291-95, 1361-62).

Petitioners made some claim that VCA's purchase of a portion of the Apex equipment constituted an interference with the Apex-Continental association. The proof, however, was that Apex decided to dispose of its equipment simply because it was going out of the vanadium business (R. 1284-88) and that the same equipment was offered to petitioners first, who declined to purchase it (R. 1337-38, Ex. V-2-F, R. 1288-90). Petitioners' own record references on the subject (Pet. 24-25, Pet. App. 36-37) show that Apex left the business because its "dealings with Mr. Leir have not proven at all satisfactory" (R. 1335, Ex. 62, R. 671-73) and prove nothing else.

The Van-Ex Venture—1942-1943

After the Apex termination Continental's vanadium business was largely in repackaging and selling vanadium oxide under the trade name "Van-Ex," at prices higher than those permitted by the Office of Price Administration.

The venture started as a plan to add aluminum and silicon to vanadium oxide and sell the resulting mixture (R. 844), but those familiar with metallurgy fortunately warned petitioners that such mixtures would cause explosions (Ex. V-1-T, V-1-U, R. 2517-18). Petitioners then planned to add fluorspar merely as a flux and to conceal the composition (R. 1162) but shortly eliminated that as

well; after the first shipment in 1942 Van-Ex consisted of straight vanadium oxide (Ex. V-1-X, R. 1171-72, 1007-10, 1282). The name Van-Ex was nevertheless retained, and the product was sold at $1.34 per pound as compared to the O.P.A. price for vanadium oxide of $1.10 per pound (Ex. V-2-M, R. 2555-64, 1728, 909-10).

The claim, again, was that Continental could not get adequate supplies (Complaint, para. 34, R. 18-19). Its own evidence and records, however, were all to the contrary. Shattuck continued to sell in 1942 (Ex. 118, R. 2203, 1066) as did Nisley (R. 693-94). Leir wrote in January 1943 that he had "sufficient raw material" (Ex. V-2-C, R. 1194) and admitted on the stand that his supplies at the time were "ample" (R. 1196). Nisley's government-subsidized plant produced 88,929 pounds of vanadium oxide in 1943, all of which was available to Continental, but Continental bought none of it (R. 1610, 663). It canceled one order in July, ostensibly because it was not in the form of flakes (Ex. U-3-Z, R. 931-32) although it had previously accepted oxide in the same form from another mill (R. 1612). Then in October, when the Nisley oxide was in flakes and "just what we like best," it still declined to buy (Ex. U-5-J, R. 2471-73, 1209).

The petitioners claimed some interference in 1943 with their Van-Ex sales to Canada but had no evidence of it. The evidence offered was that Electro Metallurgical Company of Canada, appointed as agent of the Canadian government to buy vanadium for the Canadian steel mills (Complaint, pp. 36-37, R. 19-21, 809, Pet. 61), declined to buy overpriced vanadium oxide from Continental. Not only was such a governmental act beyond the scope of the

antitrust laws, as the court below held,[6] but there was no substantiation of the claim that such refusal to buy was wrongfully induced. Petitioners offered no evidence on the point other than a hearsay statement attributed to an unauthorized, non-officer employee of Carbide (R. 808-39) supposedly telling petitioners they should not do business in Canada. There was no evidence introduced or offered that any respondent authorized or adopted such statement.[7]

The Climax Venture—1943

Climax Molybdenum Corporation manufactured 20,000 pounds of ferrovanadium under a specific contract with Continental which called for no further production thereafter (Ex. 111, R. 1016-17, 1014). Half of the vanadium oxide for the contract was supplied by EMS, the Carbide subsidiary (Ex. U-4-D, R. 942, Ex. U-4-E, R. 943-44).[8] Petitioners claimed that respondents interfered with further contractual relationships with Climax, but had no evidence other than the same hearsay threats described immediately above, which were supposed to relate to Climax as well as to the Van-Ex sales. Petitioners called no witness from Climax. No evidence at all was offered that

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[6] *Yearsley v. Ross Constr. Co.*, 309 U.S. 18 (1940); *Barr v. Matteo*, 360 U.S. 564 (1959); *American Banana Co. v. United Fruit Co.*, 213 U.S. 347 (1909); *Eastern R. Conf. v. Noerr Motors*, 365 U.S. 127 (1961); *Parker v. Brown*, 317 U.S. 341 (1943); *United States v. Rock Royal Co-op*, 307 U.S. 533 (1939); *Asheville Tobacco Board of Trade Inc. v. F.T.C.*, 263 F.2d 502 (4th Cir. 1959); *Stroud v. Benson*, 155 F.Supp. 482 (E.D.N.C. 1957), *case remanded and dismissed* 254 F.2d 448 (4th Cir. 1958), *cert. denied*, 358 U.S. 817 (1958).

[7] Thus the hearsay statement was not admissible as an admission by any respondent (Restatement, *Agency* 2d, Sections 286, Comment b, and 288), and by the same token proved nothing.

[8] Omitted from petitioners' table (Pet. 29).

Climax wanted further business with Continental, or that any threats were communicated or known to it, or, if they were, that they had any effect whatever. In short, respondents had nothing to do with the Climax contract, other than to furnish half of the supplies.

The Imperial Venture—1944 and After

In January 1944, Continental made a five-year "contract" with Imperial Paper & Color Corporation for Imperial to convert oxide into ferrovanadium "contingent upon the decision of Imperial to manufacture vanadium" (Ex. 110, R. 2175-78, 1014), but Imperial never decided to begin manufacturing under the arrangement. Petitioners claim that its failure to do so was occasioned by inadequacy of supplies (Complaint, para. 35, R. 19). Petitioners called no witness from Imperial.

Once again, the claim collapses in the face of Continental's own correspondence and records.

For the entire period 1944 through 1949, petitioners can point to no refusals to sell by respondents; the record is one of refusals to buy. Continental made no offers at all to VCA in 1944, 1945, or 1946, declined an offer to sell in 1947 (Ex. 63, R. 780-83)[9] and made no requests thereafter. It made no offers to buy from the Carbide companies in 1944; it asked for and received a small supply for a test run at Imperial in 1945 (Ex. U-4-V, R. 974-75, Ex. U-4-W, R. 975-76);[10] it had requirements contracts in 1946, 1947, 1948 and 1949 for unlimited quantities (Ex. U-4-X, R. 977, Ex. U-4-Y, R. 981-82, Ex. U-4-Z, R. 982-

[9]Omitted from petitioners' table (Pet. 29).

[10]Omitted from petitioners' table (Pet. 29).

83, Ex. U-5-A, R. 983, Ex. U-5-B, R. 984, Ex. U-5-H, R. 997)[11] but failed to buy more than an insignificant amount (Ex. U-5-E, R. 2467, 991, Ex. U-5-F, R. 2468, 992, Ex. U-5-G, R. 993-94). All of these facts are baldly omitted from the table in the petition dealing with petitioners' requests to buy (Pet. 29). Also unmentioned in the petition was the flat admission of Continental's Vice President, when faced with these facts on cross-examination: "The defendants have not—no, have not refused" (R. 979).

In addition, petitioners had what amounted to unlimited supplies from other sources, but failed to buy. In 1944 the Nisley oxide already milled was still for sale (Ex. U-4-B, R. 936-37) and Nisley wanted to mill and sell more, but Continental uniformly rejected it (Ex. U-2-V, R. 732-33, Ex. U-2-W, R. 733-34, Ex. U-2-X, R. 735-36, Ex. U-2-Z, R. 738, Ex. U-3-A, R. 739, Ex. U-3-B, R. 740-41). It also refused offers from Blanding (Ex. V-2-K, R. 2533-53, 1715, Ex. V-2-L, R. 2554, 1724, 1718-19, 1725-27) and refused an opportunity to buy North Continent Mines, the source of the Shattuck supply, outright (Ex. U-5-I, R. 1204-08). Imperial also turned down numerous foreign supplies of vanadium, although Continental professed to be interested (Ex. U-3-F, R. 879-81, Ex. U-3-G, R. 881-85, Ex. U-3-H, R. 886-87, Ex. U-3-I, R. 887-89, Ex. U-3-J, R. 889-91, Ex. U-3-K, R. 893-97, Ex. U-3-M, R. 897-99, Ex. U-3-N, R. 899-901, Ex. U-3-O, R. 901-04, Ex. U-3-P, R. 904-06). Finally, although in 1944 the huge Government stockpile of 2,500,000 pounds of oxide (Ex. U-4-T, R. 968-70) was available to it in any "given quan-

[11] Omitted from petitioners' table (Pet. 29).

tity" (Ex. U-4-R, R. 964-65), Continental bought only about 5,000 pounds (Ex. U-4-S, R. 965-68). Continental's Vice President could not recall that they "bought any substantial quantities after that" from the Government supply (R. 972).

In such circumstances the charge that "Imperial was compelled to abandon the contract with the consent of *Continental* because of the inability of *Imperial* or Continental to secure vanadium oxide or vanadium-bearing ores" (Complaint, para. 35, R. 19) is not only fabricated but absurd. By 1944 production had so far exceeded demand that Continental could have increased its business tenfold, and not lacked for supplies.

Continental's reason for abandoning the vanadium business was the exact opposite of its claim: it left because vanadium had become a glut on the market. The wartime shortage upon which petitioners had temporarily traded was at an end.

ARGUMENT

A. THE DECISION BELOW DOES NOT IMPINGE IN ANY WAY UPON THE RULE OF THE EASTMAN KODAK, STORY PARCHMENT AND BIGELOW CASES. PETITIONERS IN THIS CASE FAILED TO SHOW ANY INJURY CAUSED BY RESPONDENTS, A REQUIREMENT WRITTEN INTO THE STATUTE AND UNIFORMLY RECOGNIZED BY THE DECISIONS OF THIS COURT.

The court below correctly recognized and applied the landmark decisions in *Eastman Kodak v. Southern Photo Co.*, 273 U.S. 359 (1927), *Story Parchment Co. v. Paterson Co.*, 282 U.S. 555 (1931), and *Bigelow v. RKO Radio Pictures*, 327 U.S. 251 (1946).

In those cases this Court distinguished between the fact of damage and the amount of damage, holding that although the latter could be approximated the former must be shown with reasonable certainty.[12] The sum and substance of the rule enunciated in those opinions is expressed in *Bigelow*, which states that the fact that some damage resulted from an antitrust violation must be shown as a "just and reasonable inference" from facts having a tendency to injure (327 U.S. at 264). If there is such damage so caused, then the amount of it may be approximated by reasonable estimate. But there must be some resulting injury shown, as the statute, 15 U.S.C. Sec. 15, expressly requires.

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[12]In the present case the court below could also have correctly held that there was no proof whatever of the amount of damage. Continental presented no evidence of any *net* profits whatever on any of its vanadium operations at any time (R. 1223-27, Ex. 120, R. 2213, 1094, Ex. 121 for ident.), and merely attempted to compare with its own profits in other businesses, and with respondents' profits in vanadium and uranium combined.

These principles were fully recognized by the court below. The court questioned whether on its facts *Bigelow* was specifically applicable but correctly stated that if it was, "it was still incumbent upon [petitioners] to show on the trial that their reiterated lack of supplies was the result of defendants' refusals to deal with them and of defendants' efforts to prevent them from obtaining raw materials elsewhere" (289 F.2d at 91, R. 2573). This was plainly a correct statement of the law on the present record.

The case was tried on the theory that petitioners were forced out of the vanadium business because of their asserted inability to secure supplies of raw material. Petitioners' attempt at proof of damage was all based upon their insistence that they could sell whatever they could produce (R. 857-59) but that they were unable to get sufficient supplies for such production (R. 852-63, 1107-13). There was no effort to compute damages flowing from any other alleged injury.

The proof, however, was conclusive from admissions at trial and from petitioners' own letters and documents that Continental had adequate supplies of vanadium available during the entire period in suit. Petitioners admitted, through Leir, the adequacy of their supplies at various times in 1940, 1942 and 1943, years of general shortage. They or their associates declined to buy offered and available supplies in 1939, 1940, 1941, 1942, 1943, 1944, 1945, 1946, 1947, 1948 and 1949: that is, in every single year for which damages are claimed. They left the business in 1944, when the supply was greater than ever before, and

never tried to re-enter it, despite their requirements contracts with the very parties they now say refused to sell.

If there was any cause of damage other than the claimed supply restrictions which petitioners could show, under their complaint and their theory of the case at trial, they failed to offer any evidence of it. They argue that VCA interfered with Apex; the evidence offered was only that VCA bought certain equipment which petitioners had previously refused to buy. They argue that the Carbide companies interfered with Climax; the evidence offered was only by hearsay of a supposed threat by a non-authorized employee, never shown to have been expressed or intimated to Climax. They argue that there was an interference with their sales to Canada; the evidence offered was only of the same unrelated hearsay, together with the fact that the Canadian Government's agent declined to buy some of their overpriced vanadium. Throughout there was insinuation, but no factual backing.

In short, none of the particular claims in the present case was substantiated in the sense required by *Bigelow*: as to none did the evidence permit a just and reasonable inference that damage resulted from any proven violation. The court below fulfilled its function of reviewing the entire record, the evidence received and offered and all inferences therefrom, and properly concluded that it could find no such resultant damage. Such a decision, on this record, presents no principle of law for this Court's attention.

B. THE COURT BELOW PROPERLY AFFIRMED THE JUDGMENT UPON THE GROUND THAT ANY ERRORS IN THE TRIAL PROCEEDINGS WOULD NOT AFFECT THE SUBSTANTIAL RIGHTS OF THE PARTIES.

Petitioners ask this Court to rule that the court below was without power to affirm the judgment of the trial court upon the ground selected, which was that petitioners had failed to prove their case and that therefore any errors in the rulings or instructions were immaterial.

The rule, however, is settled by this Court that "if the decision below is correct, it must be affirmed, although the lower court relied upon a wrong ground or gave a wrong reason." *Helvering v. Gowran*, 302 U.S. 238, 245 (1937); *Brown v. Allen*, 344 U.S. 443, 459 (1953). It is likewise settled that an appellee may, without taking a cross-appeal, urge in support of the judgment any matter appearing in the record. *U.S. v. American Ry. Exp. Co.*, 265 U.S. 425, 435 (1924); *Langnes v. Green*, 282 U.S. 531, 538-39 (1931); *Jaffke v. Dunham*, 352 U.S. 280, 281 (1957). The rule of these cases is codified in the harmless error statute, 28 U.S.C. Sec. 2111, and in Rule 61, F.R.C.P. (Appendix A hereto), both cited and relied upon by the court below.

The courts of appeal have regularly applied these governing principles to affirm judgments of the trial courts. Thus they have repeatedly held that where a defendant is entitled to a directed verdict, errors in the charge to the jury, *U.S. v. J. E. Bohannon Co.*, 232 F.2d 756, 757-58 (6th Cir. 1956); *Wannacott v. Denver & Rio Grande Western R. Co.*, 187 F.2d 607, 608 (10th Cir. 1951); *Weidenfeld v. Pacific Imp. Co.*, 43 F.2d 817, 820 (2d Cir.), *cert. denied*, 282 U.S. 890 (1930); or in the exclusion of

evidence, *Syres v. Oil Workers International Union*, 257 F.2d 479, 484 (5th Cir. 1958), *cert. denied*, 358 U.S. 929 (1959); *Baird v. Aluminum Seal Company*, 250 F.2d 595, 601 (3d Cir. 1957); or both, *Monolith Portland Midwest Co. v. Western Pub. Serv. Co.*, 142 F.2d 857, 859-60 (10th Cir. 1944); *Nalbantian v. United States*, 54 F.2d 63, 64 (7th Cir.), *cert. denied*, 285 U.S. 536 (1932), are an insufficient ground for reversal upon appeal. In none of these cases did the winner of the jury verdict move for judgment notwithstanding the verdict or cross-appeal. These cases are precisely in point and they squarely depend for their reasoning on the governing principles long settled in this Court.

Petitioners cite cases which hold that the party who *loses* the verdict in the trial court and does not then ask for judgment notwithstanding that verdict cannot on appeal secure more than a new trial. *Cone v. West Virginia Paper Co.*, 330 U.S. 212 (1947); *Globe Liquor Co. v. San Roman*, 332 U.S. 571 (1948); *Johnson v. New York N.H. and H.R. Co.*, 344 U.S. 48 (1952).[13] Such cases, however, do not purport to concern the affirmance of a judgment. They deal with the rights of a party who lost the verdict and judgment in the trial court, and who has failed to comply with Rule 50(b) F.R.C.P. The latter concerns, and concerns only, the setting aside of verdicts and the

[13] *Thurber Corp. v. Fairchild Motor Corp.*, 269 F.2d 841 (5th Cir. 1959), also cited by petitioners, does not purport to be a reversal of the same court's ruling just a year before in *Syres v. Oil Workers International Union*, *supra*, or its earlier and similar decision in *Rushing v. Metro-Goldwyn-Mayer Distributing Corp.*, 214 F.2d 542 (5th Cir. 1954). The court stated (269 F.2d at 852) that "we are not ruling" that an instructed verdict should have been granted.

granting of judgment notwithstanding a verdict. The rule by its terms has nothing to do with a party's rights or duties where the verdict and judgment are favorable; plainly it does not contemplate the absurdity of a motion by the winning party attacking the verdict or judgment; and there is no suggestion in this Court's opinions discussing it that the rule has any such application.

On the contrary this Court has refuted just such an argument in one of the cases on which petitioners particularly rely. In *Story Parchment Co. v. Paterson Co.*, 282 U.S. 555 (1931), this Court held that it should consider upon the merits respondents' additional ground for sustaining the judgment below, which was that there was no evidence of an antitrust violation. Petitioners insisted that such ground was not open for consideration because there was no cross-petition for certiorari, but this Court disagreed, saying (282 U.S. at 560) "respondents do not invoke that ground in order to overthrow the judgment below, but to sustain it; and this they may do."

It follows that the argument is without support in principle, in the statute, in the Federal rules, or in the cases.

CONCLUSION

No conflict in the decisions is shown by the petition, nor any erroneous application of law. The failure of proof was complete. The petition should be denied.

Dated: San Francisco, California,
September 8, 1961.

Respectfully submitted,

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(Appendices A, B and C Follow)

Appendix A

Act of May 24, 1949, Chapter 139, Section 110, 63 Stat. 105, 28 U.S.C. Sec. 2111:

> "On the hearing of any appeal or writ of certiorari in any case, the court shall give judgment after an examination of the record without regard to errors or defects which do not affect the substantial rights of the parties."

Rule 61, Federal Rules of Civil Procedure:

> "No error in either the admission or the exclusion of evidence and no error or defect in any ruling or order or in anything done or omitted by the court or by any of the parties is ground for granting a new trial or for setting aside a verdict or for vacating, modifying or otherwise disturbing a judgment or order, unless refusal to take such action appears to the court inconsistent with substantial justice. The court at every stage of the proceeding must disregard any error or defect in the proceeding which does not affect the substantial rights of the parties."

Appendix B

Respondents file herewith under Rule 21(6) certified copies of appellants' designation of record and the designations of the record for printing filed by both parties, together with a certificate of the clerk of the court below stating that the designations for printing included all of the testimony in the trial transcript. Below are reprinted the appellants' designation of record and the clerk's certificate, omitting in each instance the title of court and cause.

DESIGNATION OF RECORD

To the Clerk of the Above-Entitled Court:

Plaintiffs-appellants in the above-entitled case having appealed to the United States Court of Appeals for the Ninth Circuit from a final judgment heretofore made and entered herein, you are hereby requested to prepare certified record of appeal in accordance with the rules of the said Court of Appeals and to file the same with the Clerk of the said Court in due course, as provided by law, to include the following:

1. The complete record and all of the proceedings and evidence in the above-entitled action.

2. This designation of record.

Dated: June 30, 1958.

Joseph L. Alioto

Joseph L. Alioto
Attorney for Plaintiffs-Appellants

CERTIFICATE OF CLERK, U. S. COURT OF APPEALS FOR THE NINTH CIRCUIT, TO SUPPLEMENTAL RECORD CERTIFIED UNDER RULE 21 OF THE REVISED RULES OF THE SUPREME COURT OF THE UNITED STATES.

I, WILLIAM E. WILSON, as Chief Deputy Clerk of the United States Court of Appeals for the Ninth Circuit, do hereby certify the foregoing documents: designation of appellants filed in the District Court, appellants' statement of points and designation or record, letter amending designation; designation of appellees' Union Carbide, et al., supplemental designation of appellees' Union Carbide, et al., letter of Clerk, U. S. Court of Appeals of April 26, 1960 to be a full, true and correct copy of documents requested by the appellees and certified as a supplemental record under Rule 21 of the Revised Rules of the Supreme Court of the United States as the originals thereof remain on file and appear of record in my office.

I further certify that I have compared the designations of the record of printing filed by the respective parties as transmitted herewith, with the reporter's transcript in this case in the United States District Court for the Northern District of California, and that the parties did designate for printing all portions of the said reporter's transcript which contain the testimony of the witnesses, and omitted portions consisting of certain statements and arguments of counsel and colloquies between court and counsel.

ATTEST my hand and the seal of the said The United States Court of Appeals for the Ninth Circuit, as the

City and County of San Francisco, State of California, this 7th day of September, 1961.

(SEAL)

WILLIAM E. WILSON

WILLIAM E. WILSON
Chief Deputy Clerk

Appendix C

The letter reprinted below is one of the documents certified to the Court under Rule 21(6) by means of the clerk's certificate filed herewith and reprinted in Appendix B above.

Office of the Clerk
U. S. Court of Appeals
For the Ninth Circuit
San Francisco 1, Calif.

April 26, 1960

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No. 16149
Continental Ore Co. v. Union Carbide

Gentlemen:

The Court has requested my office to suggest to counsel in the above entitled case that it would be helpful to the Court if counsel would file additional memoranda (an original and three copies, which may be typewritten) pointing to every specific place in the record where there is testimony or documentary evidence which will show or tend to show:

1. The cause of the termination of Apex Smelting Company's arrangement with Continental.

2. The cause of the termination of Imperial Paper and Color Corporation's arrangement with Continental.

3. The cause of the cessation of shipments by Continental of vanadium compounds from its Long Island premises.

4. The cause of the failure of Continental to work out an arrangement with Climax Molybdenum Corporation.

The Court requests that this memoranda be filed within two weeks from today. Thank you.

Sincerely,
Frank H. Schmid
Clerk

FS:nd

SUPREME COURT, U. S.
FILED
MAR 2 1962
JOHN F. DAVIS, CLERK

In the Supreme Court

OF THE

United States

OCTOBER TERM, 1961

No. 304

CONTINENTAL ORE COMPANY, a Partnership, and HENRY J. LEIR, ERNA D. LEIR, LINA SCHLOSS, as Individuals and as Partners under the trade name and style of CONTINENTAL ORE COMPANY, *Petitioners,*

vs.

UNION CARBIDE AND CARBON CORPORATION; UNITED STATES VANADIUM CORPORATION; ELECTRO METALLURGICAL SALES CORPORATION; ELECTRO METALLURGICAL COMPANY OF CANADA, LIMITED; VANADIUM CORPORATION OF AMERICA, *Respondents.*

On Writ of Certiorari to the United States Court of Appeals for the Ninth Circuit

PETITIONERS' OPENING BRIEF

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A

Question 1

The determination by an Appellate Court of the question of causation as a matter of law in an action brought under Sections 1 and 2 of the Sherman Act involving an admitted conspiracy to monopolize by respondents holding 100% of the industry, after proof of an intent by respondents to eliminate petitioners and the showing of persistent and bona fide efforts by petitioners to enter the industry, coupled with proof of direct and immediate impact and harm consisting of respondents' refusals to deal, interferences with petitioners' supplies and manufacturing associates, orders to leave the industry, threats of reprisals against petitioners' manufacturing associates, and the elimination of petitioners' export market by the use of a subsidiary is contrary to the decisions of this court, the purposes of Congress and the judicial application of the Sherman Act 74

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A. The decision below is in basic conflict with the purposes of Congress in establishing liability on those who conspire to monopolize, with the decisions of this court which have rejected the determination of legal cause as a matter of law in Sherman Act litigation, and with decisions of this court which allow damages to those who suffer from the natural consequences of wrongful and intended acts 74

B. The decision below is in direct conflict with Story Parchment Co. v. Paterson Parchment Paper Co., 282 U.S. 555 (1931); Bigelow v. RKO Radio Pictures, 327 U.S. 251 (1946); Eastman Kodak Co. v. Southern Photo Materials Co., 273 U.S. 359 (1927), all landmark decisions of this court 81

1. The decision below is in direct conflict with Story Parchment Paper Co., 282 U.S. 555 (1931), which held that the proof of a conspiracy to monopolize contemplating the elimination of the plaintiff in an effort to maintain a monopoly control and the demise of the plaintiff-competitor presented sufficient evidence of causation to sustain a verdict for the plaintiff 81

2. The decision below is in direct conflict with Bigelow v. RKO Radio Pictures, 327 U.S. 251 (1946), which held that a wrongdoer may not object to a plaintiff's estimate of the cause of injury and its extent because it was not based on more accurate data when the wrongdoer's misconduct has rendered this information unavailable 86

B

Question 2

Petitioners, against whom a directed verdict was ordered by the Appellate Court as a matter of law, were deprived of a jury trial by the Appellate Court below which, in directing a verdict, weighed the evidence, made factual rulings on the sufficiency of the evidence of

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causation, did not view the evidence as a whole, did not allow petitioners the benefit of their evidence, did not allow petitioners the benefit of all inferences and presumptions that could be drawn from the evidence and did not resolve all conflicts in the evidence in favor of petitioners, all in direct conflict with rules governing the judicial review and the decisions of this court 91

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C. The court below failed to give judicial meaning and content to the violations of law committed by respondents and the natural tendency of these acts to injure. Instead the court drew inferences against the petitioners so as to exact legal duties from them which are unwarranted in the law 95

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In the Supreme Court
OF THE
United States

OCTOBER TERM, 1961

No. 304

CONTINENTAL ORE COMPANY, a Partnership, and HENRY J. LEIR, ERNA D. LEIR, LINA SCHLOSS, as Individuals and as Partners under the trade name and style of CONTINENTAL ORE COMPANY,

Petitioners,

vs.

UNION CARBIDE AND CARBON CORPORATION; UNITED STATES VANADIUM CORPORATION; ELECTRO METALLURGICAL SALES CORPORATION; ELECTRO METALLURGICAL COMPANY OF CANADA, LIMITED; VANADIUM CORPORATION OF AMERICA,

Respondents.

On Writ of Certiorari to the United States Court of Appeals for the Ninth Circuit

PETITIONERS' OPENING BRIEF

I

OPINIONS IN THE COURT BELOW

The opinion of the United States Court of Appeals for the Ninth Circuit is reported in 289 F.2d 86 (1961).

No other opinions were delivered by any of the Courts below.

II

JUDGMENTS BELOW AND JURISDICTION

This was an antitrust action which was filed in the Northern District Court for the Northern District of California, Southern Division. It was tried by a jury, the late Hon. Edgar S. Vaught presiding. The jury returned a verdict in favor of defendants and judgment was entered. (R. 104-105.) Plaintiffs appealed to the United States Court of Appeals for the Ninth Circuit which affirmed the judgment. (R. 2583-2584.) Petitioners (plaintiffs below) filed a Petition for Rehearing on April 21, 1961. (R. 2584.) This Petition was denied on May 15, 1961. (R. 2584.)[1]

The jurisdiction of this Court was invoked under 28 U.S.C. Section 1254(1).

This Honorable Court granted petitioners' Petition for a Writ of Certiorari on October 23, 1961. (R. 2584.) The Certiorari was specifically limited to certain questions, which are set forth in Section IV of this Brief.

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[1]Volumes I through VII of the Record herein cover record pages 1 through 2586 and contain the record as originally printed, which includes many of the exhibits. These volumes also include the record reference where every exhibit was offered in evidence. Whenever an exhibit is referred to herein, the reference is to the page where that exhibit appears in Volumes VI and VII of the original record, and Volumes VIII and IX of the record printed in this Court, followed by reference to the page where the exhibit was offered in evidence which will be found in Volumes I through VI of the original record. Volume VI contains pages 2069 to 2286. Volume VII contains pages 2311 to 2586. Volume VIII contains pages 1 to 314. Volume IX contains pages 315 to 610.

III

STATUTES INVOLVED

In this case, petitioners claim that respondents violated the antitrust laws. The pertinent statutes involved are:

Sherman Act, Section 1, July 2, 1890, Chapter 647, Sec. 1, 26 Stat. 208, 15 U.S. Code, Sec. 1:

> "Section 1. Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is hereby declared to be illegal . . ."

Sherman Act, Section 2, July 2, 1890, Chap. 647, Sec. 2, 26 Stat. 209, 15 U.S. Code, Sec. 2:

> "Section 2. Every person who shall monopolize or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by fine not exceeding five thousand dollars, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the Court."

Petitioners brought their action under Section 4 of the Clayton Act, October 15, 1914, Chap. 323, Sec. 4, 38 Stat. 731, 15 U.S.Code, Sec. 15:

> "Section 4. That any person who shall be injured in his business or property by reason of anything forbidden in the antitrust laws may sue therefor in any district court of the United States in the district in which the defendant resides or is found or has an agent, without respect to the amount in controversy and shall recover threefold the damages by him sustained, and the cost of suit, including a reasonable attorney's fee."

IV

QUESTIONS PRESENTED

In granting the Writ of Certiorari in this case, this Honorable Court limited this appeal to the following questions:

1. Whether an Appellate Court can take away from a jury the question of causal effect concerning an injury by a 100% two-company monopoly (admittedly achieved pursuant to an intent to monopolize) when the question of violation is confessed and the issue of measurement of damages is more than sufficiently supported by relevant economic data and where the destruction of the plaintiff company (petitioner herein) was admitted to be, by a chief executive officer of one of the defendants, an important goal of the monopolists?

2. Whether petitioners, an American company, can claim damages under the antitrust laws for injury caused to them by their elimination from the Canadian market by two other American companies (respondents herein) who had entered into a conspiracy to eliminate all competition and to monopolize the industry, and as part of the conspiracy, one of the respondent American companies utilized its domination and control over a wholly owned Canadian subsidiary, which had been given a discretionary power by the Canadian government to allocate the importation of vanadium into Canada during the war, to exclude the imports of petitioners (competitors) from entering Canada for sale to petitioners' Canadian customers, the refusal of the Canadian subsidiary to allocate vanadium to petitioners' Canadian customers being directed by its American parent company pursuant to the

overall conspiracy to eliminate all competition and specifically to eliminate petitioners from the American vanadium business. This issue was erroneously directed against petitioners in the Circuit Court's asserted misapplication of this Court's recent opinion in *Eastern Railroad Pres. Conf. v. Noerr Motor Frgt., Inc.*, 365 U.S. 127 (1961).

3. Whether petitioners, against whom a directed verdict was ordered by the Appellate Court, were deprived of a trial by jury by the Appellate Court below who weighed the evidence, made factual rulings on the sufficiency of evidence of causation, did not view the evidence as a whole, did not allow petitioners the benefit of their evidence, did not allow petitioners the benefit of all inferences and presumptions to be drawn from the evidence and did not resolve all conflicts in the evidence in favor of petitioners in direct conflict with this Court's opinion in *Beacon Theatres, Inc. v. Westover*, 359 U.S. 500 (1959).

V

STATEMENT OF THE CASE

1. THE COMPLAINT

This action concerns the exclusion of petitioners from a monopoly industry, the milling, manufacture and sale of vanadium oxide and ferrovanadium.[2] Petitioners were

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[2]Vanadium is a rare metallic element found in the United States on the Colorado Plateau, a geographical unit formed by the western part of Colorado, the eastern part of Utah and the northern parts of New Mexico and Arizona. The vanadium-bearing ore is first mined, then converted into vanadium oxide at mill sites, located near the ore deposits. These mills crush,

distributors and agents in these products and, after a time, in other alloy metals. (Pl. Ex. 119; R. 2212, 1089; Pl. Ex. 120; R. 2213, 1094; Pl. Ex. 124 for Id.; R. 537, 1103; Pl. Ex. 125 for Id.; R. 539, 1106.) Respondents are fully integrated miners, millers, and manufacturers of ferrovanadium, other vanadium products and other alloys and metals. (Pl. Ex. 6; R. 2069, 115; Pl. Ex. 7; R. 2072; 117.)

The complaint filed in this action alleges a classic Sherman Act case, Sections 1 and 2. (R. 3-25.) In great detail it describes the parties, the nature of the commodity involved, its uses, the background of the industry, existence of independent producers, control of the industry by respondents, a combination and conspiracy to monopolize the vanadium industry and the elimination of petitioners from the industry. (R. 3-25.)

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roast and leach the ore to produce a substance known as "red cake". This red cake is then fused into a black oxide, which is interchangeably called vanadium oxide, vanadic acid, vanadium pentoxide or V_2O_5. (R. 166-169.) This black oxide is then converted into ferrovanadium, a ferro-alloy, through the application of great heat. This conversion may be accomplished either by means of an electric furnace or by an alumino-thermic process. Respondents utilized the electric furnace process of conversion. (R. 170-171, 1827-1828.) Petitioners utilized the alumino-thermic process, a process which is much cheaper and does not require large and expensive investments in electric furnaces. (Id., R. 841-842.)

The vanadium oxide produced at the mill sites located on the Colorado Plateau is then shipped to electric furnace plants, located in the East, for conversion to ferrovanadium. (Pl. Ex. 6; R. 2069-2072, 116.)

The major customers for vanadium products are the steel companies, which use the ferrovanadium in the steel bath to add toughness and tensile and torsional strength to the steel. (R. 1523-1529.) Vanadium steels are used in the manufacture of high speed tools, machine and automobile parts, and in armor plate.

The complaint charges respondents with violating Sections 1 and 2 of the Sherman Act pursuant to an agreement to control and dominate the production and sale of ferrovanadium and vanadium oxide, to suppress competition between themselves and to fix prices. (R. 13-15.)

The complaint alleges further that pursuant to this combination and agreement, Electromet Sales, one of the respondents, supplied VCA, another of the respondents with vanadium oxide supplies in order to allow VCA to maintain its position as the largest seller of ferrovanadium and vanadium oxides in the United States. (R. 15.)

The complaint alleges that as part of this conspiracy, respondents intended to and did exclude all independent producers of ferrovanadium and vanadium oxide from the vanadium industry, and that petitioners were one of the companies so eliminated. (R. 16.)

Paragraph 30 of the Complaint specifically alleges:

> "One of the direct effects proximately caused by the monopolistic practices herein alleged, as intended by defendants, was the elimination from the industry of independent producers and distributors of ferro-vanadium and vanadium oxide. One of the companies so eliminated from the industry was Continental." (R. 16.)

The complaint detailed petitioners' attempts to distribute and arrange for the production of ferrovanadium during the period 1938 to 1945. (R. 18-20.) The complaint alleges that, as a result of respondents' conspiracy, petitioners were eliminated from the vanadium industry. (R. 23.)

The acts and practices leading to the restraint upon the trade of petitioners and their elimination from the vanadium industry, as alleged in the complaint, may be summarized as follows:

(1) Respondents directly intended to eliminate all independent producers and distributors, including petitioners, from the vanadium industry (Complaint, Para. 30, R. 16);

(2) Respondents sold vanadium oxide between themselves, but refused to sell vanadium oxide to others, including petitioners (Complaint, Para. 28, R. 13-14);

(3) Respondents deprived vanadium oxide millers of a competitive market (Complaint, Para. 28 (a) (4), R. 14; Para. (b) (4); R. 14), interfered with petitioners' suppliers and potential suppliers (Paras. 33, 34, R. 18-19);

(4) Respondents fixed prices on vanadium ores, oxides and ferrovanadium (Complaint, Para. 28 (c), R. 15);

(5) Respondents interfered with Petitioners' Canadian business (Complaint, Paras. 36, 37, 38; R. 19-21).

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2. THE PARTIES

A. Petitioners (Continental Ore)

Petitioners, a partnership, are the successors in interest to a family corporation known as Continental Ore Company, hereinafter referred to as Continental. The guiding light in Continental has been and still is Mr. Henry J. Leir.

Mr. Leir came to the United States in 1938 with an extensive and practical knowledge of ores, metals and

alloys, including vanadium. (R. 1032-1047.) In Europe, he had become familiar with ferrovanadium, which had a much higher vanadium content than the ferrovanadium produced in the United States by respondents. (R. 1063.) The European ferrovanadium contained from 80% to 90% vanadium as compared with 35% to 40% in respondents' product. (R. 1063.) The Europeans employed the inexpensive alumino-thermic method of conversion, while respondents converted their ferrovanadium by means of expensive electric furnaces. (R. 170-171; R. 1827-1828; R. 841-842.)

In 1938, Mr. Leir organized Continental and made his entry into the American vanadium business. He contacted the Apex Smelting Company of Chicago, Illinois, a maker of aluminum, hereinafter referred to as "Apex". (R. 1047-1051.) In 1938 he entered into an agreement with Apex whereby Apex was to build and operate a ferrovanadium plant using Mr. Leir's alumino-thermic method of conversion and produce ferrovanadium for petitioners. Under the agreement, petitioners were to procure for Apex the vanadium oxide necessary to permit Apex to manufacture the ferrovanadium and then petitioners were to sell the finished Apex ferrovanadium product as Apex's exclusive sales agents. (Pl. Ex. 117; R. 2187-2189, 1050.)

Apex commenced producing ferrovanadium under this agreement in August or September of 1940, and continued to produce ferrovanadium for petitioners until October, 1941. (R. 1062, 1124). In October, 1941, a fire suspended operations for a short time. (R. 1154.) On January 27, 1942, Apex notified Mr. Leir that Apex was terminating its contract with Continental. (Df. V's Ex. V-I-Y,

R. 2519, 1173.) Apex terminated production in July, 1942. (Pl. Ex. 122; R. 2215, 1096; See R. 2218-2220.)

Thereafter, petitioners installed a grinder and mixer in a warehouse located on Long Island, New York, and from 1942 to 1944 they attempted to distribute their product Van-Ex, a product which petitioners had developed at a lower cost and which could be used directly in the steel bath in place of ferrovanadium. (R. 840-845, 860; see Pl. Ex. 119; R. 2212, 1089, 989.)

On February 10, 1943, petitioners and the Climax Molybdenum Corporation of Langeloth, Pennsylvania, hereinafter referred to as "Climax", entered into a contract for the conversion of 20,000 pounds of vanadium oxide into ferrovanadium. (Pl. Ex. 111; R. 182-183, 1014.) Climax terminated any further arrangements when Union Carbide threatened it with commercial reprisals if it persisted in remaining in the vanadium business. (R. 829.)

In the Spring of 1944, petitioners and the Imperial Paper and Color Corporation, hereinafter referred to as "Imperial", entered into a contract whereby Imperial agreed to process ferrovanadium and vanadium oxide for petitioners and petitioners undertook to secure the necessary raw materials for Imperial and to act as sales agent for Imperial's entire output. (Pl. Ex. 110; R. 2175, 1014.) Imperial was compelled to abandon this arrangement because of its inability to secure adequate vanadium supplies. (Pl. Exs. 114, 115; R. 184, 2179; 1021, 1023.)

As part of their vanadium business, petitioners had also developed an extensive foreign business with a large Canadian steel mill, the Atlas Steels Limited, hereinafter re-

ferred to as "Atlas". In 1942, petitioners shipped Van-Ex to Atlas from their Long Island plant. (R. 802.) At the trial, petitioners offered to prove that in 1943 they were prevented from shipping their products to their Canadian customers and into the Canadian market by Electromet of Canada, Union Carbide's wholly owned Canadian subsidiary, pursuant to respondents' conspiracy to eliminate petitioners and all other competitors from the American vanadium industry. (Pl. Ex. for Id. 80-108, R. 438-466; R. 801-840; Wolf, R. 813-817; 832-834; 845-851; 1008-1012.) This evidence was totally excluded by the trial Court. (R. 801-851.)

By the end of 1945, petitioners were no longer in the vanadium industry, having lost all prior attempts at successful ventures. (R. 978-981.)

Petitioners' billings and sales are shown in Pl. Ex. 119, 120; 2212-2213; 1089, 1094. In 1941 and 1942 alone, petitioners sold over $200,000.00 in vanadium products. (R. 2212.)

Mr. Leir was exceptionally successful in many other fields of ores, alloys and minerals. (Pl. Ex. 123-126 for Id.; R. 536-541; R. 1097-1106.) The only field of endeavor in which he was not able to become established and to succeed, after a persistent effort to do so, was the vanadium business. (R. 1031-1033, 1097-1114. See Pl. Exs. 123, 124, 125 for Id.; R. 536-541; 1097, 1103, 1106.)

B. Union Carbide

Union Carbide is a New York corporation which holds ownership of corporations engaged in the manufacture, distribution and sale of ferro-alloys. (R. 153, 164-166.)

United States Vanadium Corporation (USV) is the wholly owned Union Carbide subsidiary which was engaged in the business of mining and milling vanadium ores on the Colorado Plateau. (R. 27, Pl. Ex. 6; R. 2071, 115.)

In Canada, Union Carbide wholly owned the Electro Metallurgical Company of Canada (Eletromet of Canada), a corporation organized and existing under the laws of Canada. (R. 27-28, 819-820.) Union Carbide sold vanadium products in Canada through this Canadian subsidiary.

Union Carbide or its subsidiaries were the only major domestic producers of vanadium oxide on the Colorado Plateau until about 1940. (Pl. Ex. 18; R. 134, 125; Pl. Ex. 6; R. 2069-2072, 115.)

In 1927, Union Carbide had acquired the properties of the United States Vanadium Corporation, located at Rifle, Colorado and entered the vanadium business. (Pl. Ex. 6; R. 2070, 115.) The Rifle mill was dismantled in 1932 (Id.). In 1936, USV erected an oxide mill at Uravan, Colorado (Id.). The Uravan plant was erected only after meetings with executives of VCA with respect to the possible joint operation of an oxide mill. (Pl. Ex. 52 for Id.; R. 366, 320.) In 1938, the Uravan plant was doubled *at the request of VCA*. (R. 145.) The plant was doubled specifically to supply VCA with vanadium oxide at below market prices. (Id.) In fact, VCA supplied Union Carbide with the steel necessary to increase the plant's capacity. (R. 146.) From 1942 to January, 1944, USV also operated the vanadium mill at Durango, Colorado, as agent for the Metals Reserve Company, a governmental agency which appointed USV its agent for the war time procurement of

vanadium. (Df. U's Ex. U-B; R. 2358, R. 367.) USV acquired ownership of the Durango mill from the United States Government in July, 1944, and operated it until June 2, 1948. (Pls.' Ex. 6; R. 2071, 115.) In 1942 USV erected another mill at Rifle, Colorado. (R. 2070.)

Union Carbide wholly owns the Electro Metallurgical Company (Electromet), which manufactures ferrovanadium from the vanadium oxide mined and milled by its other wholly owned subsidiary USV. (Pl. Ex. 6; R. 2071-2072; 115.) On November 30, 1948, Electromet was liquidated and its assets were transferred to Union Carbide. (Union Carbide Answer, R. 27.) Union Carbide also wholly owned the Electro Metallurgical Sales Corporation (Electromet Sales), which sold the vanadium products for Union Carbide. (Union Carbide Answer, R. 26.) Electromet Sales was merged into Union Carbide on March 14, 1949. (R. 27.)

C. Vanadium Corporation of America

Vanadium Corporation of America (VCA) is a fully integrated miner, miller of vanadium oxide and manufacturer of ferrovanadium. (VCA Answer, R. 34-41.)

From 1927 to 1940, VCA's principal source of vanadium bearing ores was a Peruvian mine where it also operated a mill. (Pl. Ex. 7; R. 2072, 116.) In 1932, VCA acquired the assets of a company called the Rare Metals Corporation for $428,000.00. (Pl. Ex. 6; R. 2069, 115.) These assets included a vanadium mill located at Naturita, Colorado. (Id. 2069-2070.) Although it actually acquired the Naturita mill in 1932, the mill was not rehabilitated until 1939 and was not put into active operation until the

middle of 1940. (Id. 2070, 1827.) From 1932 to 1940 VCA relied on its "competitor" USV for its domestic source of vanadium oxide. (Pl. Ex. 8; R. 117, 2074; Pl. Exs. 43, 44, 45; R. 158, 2122, 2145; 279, 281, 283.)

From September, 1942, until February 29, 1944, VCA operated a mill located at Monticello, Utah, for the Defense Plant corporation. This Monticello Plant was erected and planned by VCA officials at government expense. (R. 1836.) VCA leased the plant during 1945 and the spring of 1946. (Pl. Ex. 7; R. 2072, 116.) In 1948, VCA acquired the Durango mill. (R. 1827; and id.)

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3. MONOPOLY CONTROL OF THE VANADIUM INDUSTRY

At all times mentioned herein, the business of milling, manufacturing and selling vanadium products was completely monopolized, controlled and dominated by respondents, the Union Carbide and Carbon Corporation (hereinafter called Union Carbide), its divisions or subsidiaries, and the Vanadium Corporation of America (hereinafter called VCA). As has been indicated, the Union Carbide divisions or subsidiaries involved in this case were the United States Vanadium Corporation (herein called USV); Electro Metallurgical Company (herein called Electromet); Electro Metallurgical Sales Corporation (herein called Electromet Sales); Electro Metallurgical Company of Canada, Ltd. (herein called Electromet of Canada). All the above mentioned companies except VCA are either divisions or wholly owned subsidiaries of Union Carbide. VCA is an independent corporation.

A. Ferrovanadium

Except for the competition offered by petitioners during their existence, at all times herein pertinent, VCA and Union Carbide *admittedly* maintained a 100% control over the manufacture and sale of ferrovanadium. (R. 1402-1403; 1843-1845; Pl. Ex. 138; R. 1256.) Petitioners were the only competition to respondents in the sale of ferrovanadium for a short period, when they were eliminated as competitors. (Pl. Ex. 119; 120; R. 2212-2213; 1089-1094.) Although during the period from 1938 to 1945 Union Carbide produced approximately 77% of the domestic vanadium oxide from which ferrovanadium is produced (Pl. Ex. 1; R. 1-6, 113; Pl. Ex. 136-137; R. 1253, 1255), it was its principal "competitor" VCA which sold approximately two-thirds of the finished product, ferrovanadium (Pl. Ex. 1; R. 6, 113; Pl. Ex. 3; R. 11-14; 115; Pl. Ex. 138, R. 1256).

Prices for ferrovanadium, the finished product, have always been uniform for each company. From 1938 to 1947 they were $2.70, $2.80 and $2.90. (Pl. Ex. 4, 5; R. 23-48, 114.) Thereafter there were uniform increases.

B. Vanadium Oxide

At all times herein pertinent, respondents controlled over 90% of the vanadium oxide produced in the United States. (Pl. Ex. 138; R. 1256, 1844-45 (1938-1947).) Respondents' mills on the Colorado Plateau accounted for over 90% of the domestic production of vanadium oxide. (Pl. Ex. 136-137; R. 1253 (1938-1945).) USV, a Union Carbide subsidiary, alone produced and sold more than 77.2% of the vanadium oxide manufactured and sold in

the United States. (Pl. Ex. 136-137, R. 1253 (1938-1945); 1844-1845; Pl. Ex. 18; R. 134, 125.) At various times, independent oxide mills attempted to start independent vanadium operations on the Colorado Plateau in competition to respondents, but, as will be shown below, they were deliberately and systematically eliminated by respondents, so that by 1944 respondents were the *only* producers of vanadium oxide on the Colorado Plateau. (Pl. Ex. 18; Id. R. 896-897.) At the trial, petitioners produced substantial evidence, including a confession by the Chief Executive Officer of USV, Mr. Blair Burwell,[3] that these independent mills were unable to operate because respondents, as part of their conspiracy to monopolize the entire vanadium industry, deliberately eliminated them as competitive vanadium oxide millers or producers. (R. 209.) The evidence in this regard showed that respondents' conspiracy to monopolize was so thorough that even the production of those independent mills which produced vanadium oxide

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[3]Without any doubt, Blair Burwell was the most informed man on vanadium and uranium on the Colorado Plateau. He was Union Carbide's principal managing agent on the Colorado Plateau. There are few transactions mentioned in the Record in which he was not the prime actor and controlling influence. He was vice-president of Union Carbide's subsidiary, USV; a Director of USV; Assistant to the Vice-President in Charge of USV's mining operations; an Engineer whose specialty was radium, vanadium and uranium; a Consultant for the Atomic Energy Commission; the Appraiser for the United States on the Colorado Plateau for the valuation of vanadium lands; Vice-President of Union Mines Development Corp. He conducted special studies, surveys and appraisals of mineral resources in the United States for Union Carbide. He was a Director of the Metal Mining Fund of the State of Colorado; a writer of technical texts on mining, Chairman of the Board of Minerals Engineering Co., a Director of the Climax Uranium Company. He has been actively engaged in mining on the Colorado Plateau since 1919. (R. 135-144.) In addition he has extensive experience in uranium. (R. 136-142.)

only as a by-product was purchased by Union Carbide specifically "to keep it off the market". (R. 178.)

Domestic prices for vanadium oxide by each company uniformly were $1.10 per pound of V_2O_5 until 1947. After 1947 prices were uniformly increased by respondents. (Pl. Ex. 4; R. 21-26, 114; Pl. Ex. 5; R. 33-48, 115.)

C. Vanadium Ore

By 1940, USV alone held more than a 90% control of all easily accessible ore bodies on the Colorado Plateau. (Pl. Ex. 18, R. 134, Col. 17; R. 160-161; 506.) Ore prices paid to miners were identical for both respondents. (R. 211-218; 496-500.) Both respondents adopted an identical price based on 2% vanadium content. (R. 497.) During the period from October 1938 to June 1942 the price paid to miners for their ore was 21 cents a pound for 2% ore. (R. 211-218; 496-500.) After June, 1942, both respondents paid the miners 31 cents a pound for 2% ore. (R. 218, 498-499.)

The independent miners, because of respondents' conspiracy, had no dependable alternative markets for the sale of their ore and were required to sell it to respondents at the prices set by respondents, both of whom had fixed identical prices for the ore. (R. 211-218; 496-500.) The few oxide mills that were started to give the miners a possible competitive outlet were deliberately eliminated from competition by respondents, as will be shown in detail hereinafter. And when the opportunity arose for the independent miners to acquire government mills after the war, these were also acquired by respondents, even though they had no need for additional mills at the time.

(Pl. Ex. 37; R. 152, 243; Pl. Ex. 38; R. 2117-2120; 244; Pl. Ex. 6, R. 2070, 115.)

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4. THE EVIDENCE PRESENTED AT THE TRIAL

Initially, petitioners will discuss respondents' overall conspiracy and monopolization of the vanadium industry, and, subsequently, the effect that this conspiracy had on petitioners.

A. There was direct evidence, including a confession by one of respondents' Chief Executive Officers, that respondents had agreed to monopolize, to fix prices and to restrain trade in the vanadium industry

All during the period of time that petitioners attempted to enter the vanadium business, respondents were engaged in an *admitted* conspiracy to monopolize the industry, to fix prices in the industry and to eliminate all independent competition.

The agreement between respondents started prior to 1938, when Union Carbide and VCA entered into an agreement whereby VCA was to be established as a competitor of Electromet in the ferrochrome business to forestall possible antitrust action which might come up if Electromet were the only producer of ferrochrome. (R. 193-197; 255-268.) In return for being set up as a controlled competitor in ferrochrome, VCA was to be allowed to dominate the vanadium business, maintain its vanadium markets and set the price for vanadium without price cutting or competition by the Union Carbide group of companies or any other competitor. (R. 193-197; 255-268.)

Mr. Burwell testified:

> "Anyway, Mr. Sneath said that the company was set up, Vanadium Corporation, to sell low-carbon ferrochrome, and in turn for which Carbide, they had agreed—he had agreed that the Union Carbide—Electro Metallurgical Company would not compete in the vanadium field in the alloys, would let the Vanadium Corporation of America set the price and be the leader on the market." (R. 262.)

Mr. Burwell testified that there was an agreement between Union Carbide and VCA to maintain the price of ferrovanadium and vanadium oxide which prevented Union Carbide from cutting the price of ferrovanadium so as to make it competitive with other alloys. He testified that Union Carbide did not adopt a competitive price for ferrovanadium and vanadium oxide but maintained artificial and fixed high prices because if Union Carbide lowered its prices to competitive prices, VCA would have been eliminated from the vanadium business and this would have violated the conspiratorial agreement between respondents whereby VCA would be allowed to remain in the vanadium business as a controlled competitor and respondents would monopolize the vanadium industry. (R. 151-152; 156-157; 191-197.)[4]

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[4]Mr. Burwell testified:

"And we were well aware at that time we were restricted in our sales in this country . . . As the producer and executive in charge of producing materials from the time it was part of my duties, your Honor, to know what the marketing conditions were and where it went and under what condition, what setup, and over the period of time prior to 1938 . . . I, to my satisfaction, to the best of my knowledge, knew that there was an agreement between the Vanadium Corporation of America and the United States Electro Metallurgical Company which restricted . . ." (Burwell R. 151-152) . . . "We couldn't sell it, your Honor, because we

In 1938, since VCA did not take all the increased production of USV's Uravan plant, which had been doubled at VCA's request (R. 145), Mr. Burwell, USV's chief executive officer and field man, complained to Mr. Gormely of Union Carbide that, because of its high inventory, USV was faced with a shut-down of its vanadium mining operations. (R. 182.) Mr. Burwell recommended that the price of vanadium be dropped so as to make it competitive with other alloys and thereby increase its demand. (R. 182-183.) Mr. Gormely attempted to help and actually resorted to subterfuge to avoid the agreement between Union Carbide and VCA not to sell vanadium below the fixed price by attempting to sell vanadium in a disguise called

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couldn't cut the price to a point where we could sell it in the United States . . . We couldn't cut the price because the Metallurgical Company wouldn't let us . . ." (R. 152-153) ". . . all we needed to do to unlock the door was to open our minds and our operations, was to reduce the price to make it competitive . . . we couldn't do anything . . . we couldn't because there was an agreement between these two companies, to the best of my knowledge . . . that prevented us from reducing the price of the vanadium and ferro-vanadium and we continued to sell vanadium oxide to the Vanadium Corporation of America. Instead of cutting the price on our huge output to stimulate production in Colorado" (R. 156-157). "I said, 'Why didn't we go ahead and cut the price of vanadium?' I believed that the Vanadium Corporation of America could not produce vanadium at a price of $2.25 a pound and survive. Mr. Gormely said that would put the Vanadium Corporation out of business. I said, 'All right, suppose you do put them out of business. What is the difference? We have people down here working—the survival of our business or the survival of the Vanadium Corporation business?' I said, 'Where do our loyalties lie? Why don't we put the Vanadium Corporation out of business?' That is clear words. He said 'If we put the Vanadium Corporation out of business, we would lose our control competitor in ferro-chrome.' That, your honor, is the cold words. There is nothing wrong about that." (R. 193-194.) ". . . He told me that the Vanadium Corporation of America had been established as a friendly competitor to sell low carbon ferro-chrome in the United States, and the reason for that was to forestall anti-trust action that might come up in the future. That was on the advice of their attorneys at that time." (R. 197.)

"silvaz". (R. 183.) The silvaz was sold to several customers, but VCA soon complained that "there had been a breach of their understanding" and Electromet was then "*forced* to discontinue the production of silvaz". (R. 183; 195; Pl. Ex. 68; R. 2151, 627.)

Respondents' letters and correspondence showed the most intimate collaboration between respondents. For example, on November, 1938, Electromet Sales sold VCA 130,000 pounds of vanadium oxide at 80¢ a pound, which was 30¢ below respondents' contract price of $1.10. (Pl. Ex. 10; R. 49, 118; R. 1896-1898.)

B. All during the period 1940 to 1942 when petitioners and Apex were attempting the manufacture and sale of ferrovanadium and receiving only irregular and sporadic supplies, USV and VCA, as part of the overall conspiracy to monopolize the vanadium industry, had arrangements whereby VCA was receiving oxide from USV at below market terms or by special arrangements

1. The "Maggie C" Agreement

In June 1939, an agreement called the "Maggie C" Agreement was entered into between respondents which provided that USV would mine ore from certain VCA mining claims, convert the ore to vanadium oxide for VCA at USV's Uravan plant at 65 cents a pound in 1939 and 75 cents per pound during 1940 for delivery to VCA. (Pl. Ex. 8; R. 2074, 117; Pl. Ex. 43, 44, 45; R. 158, 2122, 2125; 279, 281, 283.) This price was 45 cents below the market price of oxide. Under the "Maggie C" agreement, during 1939 and 1940, 717,848 pounds of vanadium oxide were delivered to VCA by its "competitor" USV. (Pl. Ex. 8, R. 2074; Pl. Ex. 150; R. 2340, 1583.) And during this time VCA executives were given access to USV's

records of production, tons of ore mined, grades, costs, etc. (R. 276-289.)

And after all available ore had been mined out of the "Maggie C" claims, VCA was allowed to continue to draw on USV oxide in excess of the amounts of ore being produced from the "Maggie C". (R. 276-289.) VCA was permitted to overdraw its account by 300,000 lbs. of oxide before the vanadium was even produced. (R. 283-240, 1957.)

2. The Dry Valley Agreement

On September 26, 1941, VCA and USV got together on still another agreement, the "Dry Valley Agreement". (Pl. Ex. 46; R. 2126, 294.) Under this agreement, USV was permitted to enter certain Dry Valley claims which USV had turned over to VCA and to mine the additional 300,000 lbs. of ore which VCA had overdrawn. (Id.) This arrangement continued to 1942. (Pl. Ex. 150; R. 2340, 1583.) The Dry Valley properties originally were owned by Molybdenum Corporation of America. (R. 285.) The properties were subsequently offered for sale. VCA was interested in acquiring the properties, as was USV. USV bought the properties. Mr. Van Fleet outbid VCA and acquired the claims. When Mr. Bransome (VCA) heard of this, he complained to Mr. Haggerson, president of Electromet and a vice-president of Union Carbide, that Mr. Van Fleet eavesdropped on a conversation and discovered VCA's bidding price. (R. 287.) He asked USV to turn these claims over to VCA. (R. 288.) Mr. Haggerson ordered Burwell and Van Fleet to return the claims to VCA against their business judgment. (R. 288.) Almost immediately Mr. Bransome entered the Dry Valley agree-

ment with USV to repay the overdraft by allowing USV to mine the claims. (R. 284-290.)

3. Respondents Fixed Prices

During the period 1933-1939, USV sold to its only competitor, VCA, 20% of the latter's oxide requirements. (Compare Pl. Ex. 3; R. 14, with Pl. Ex. 8; R. 2074.) And almost unbelievably, although during this period VCA was purchasing 20% of its raw materials (oxide) from USV, VCA sold two thirds of the market as to the finished product (ferrovanadium). (Pl. Ex. 3; R. 11-13, 113.)

In 1939, Van Fleet and Burwell again requested the Union Carbide group to lower the price of ferrovanadium to one in "reasonable relationship to our costs" and thereby increase its demands. (R. 147-149.) In spite of high inventories which threatened to close down USV's mining operations on the Plateau the price was not lowered. (R. 147.) Instead, Mr. Sneath, the European representative of Union Carbide, arranged for the sale of one million pounds of oxide in Europe through a European cartel headed by Sir Edwin Davies. (R. 148-151.) The oxide was sold in Germany and not in this country at a reduced price because there was an agreement between Vanadium Corporation of America and the Electro Metallurgical Company restricting the sales in this country (R. 150-153), and preventing Electromet from cutting the price so as to sell the surplus oxide.

In 1940, because of the increasing war demand, it was decided that VCA would open its Naturita plant, which VCA had allowed to remain dormant while it purchased oxide from its competitor USV.

Prior to the opening of this plant, Burwell of USV, Van Fleet of USV and Bransome of VCA met at Mr. Bransome's private Club in New York "in or about 1939". (R. 211.)[5] At this meeting the two "competitors" discussed labor rates, ore costs, trucking rates, production costs and the most intimate corporate secrets. (R. 214-215.) At that meeting it was agreed that both companies would pay 21 cents per pound of vanadium content in the ore, 2% being the basing point. (R. 214-216.) Mr. Bransome (VCA) told Mr. Burwell (USV) "All right we will work with you and we will follow the general or pricing schedule that you have". (R. 215.)

Thereafter, until 1942, both USV and VCA in fact did pay a base price of 21 cents per pound for 2% ore. (R. 215-216.)

In the spring of 1942, Burwell, Bransome and Kett, General Manager of VCA's mining operations, and possibly Mr. Hill (USV) met at Dove Creek, Colorado. (R. 215-217.) At this meeting VCA and USV agreed to increase the base price of vanadium ore to 31¢. (R. 217-219.) After this meeting both companies commenced paying 31¢ for their ore. (R. 218.)

Mr. Burwell testified that there was an agreement between Union Carbide and VCA which required Electromet to follow VCA prices against the business judgment of officers of USV. (R. 145-152, 157, 193-194, 229-241.)[5a]

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[5]Mr. Bransome fixed the meeting place at his private club. Mr. Burwell suggested other meeting places. But "the club was selected because it was less public". (R. 213.)

[5a]The independent miners on the Colorado Plateau subsequently filed an action under the antitrust laws in the United States District Court for the District of Utah, Central Division, claiming

Not only did USV and VCA get together and fix prices, but they set up a Kangaroo court in New York whereby they diligently policed the field to make certain that the fixed prices were maintained. Direct evidence of this type of policing was presented. For example, on November 2, 1941, S. Power Warren, USV General Superintendent at Uravan, reported to his superior, King Haldane, in New York City, that they had "plenty of evidence" that VCA was attempting to raise ore prices, but that Blair Burwell had taken a trip to Uravan and had spoken to Ralph Blitz, VCA General Superintendent at Naturita, about it and "his discussion with Blitz remedied the matter". (Pl. Ex. 35; R. 2114, 218.)[6]

And, on December 24, 1941, Haldane (USV) in New York wrote to Weston and Burwell in Colorado that Mr. Kett of VCA was protesting in New York to USV that USV was trying to take away one of VCA's miner-customers named Lyen by offering him $2.00 per ton "above the established rate". (Pl. Ex. 36; R. 151, 227.) Haldane had advised Kett that he would look into the matter. (Pl. Ex. 36.) On December 27, 1941, Weston replied to Haldane that Lyen was only a "trouble maker" and that USV had checked into the story only to find that they had furnished Lyen with the regular list price and

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that they were injured by respondents' conspiracy to fix the prices paid them for their ore. A jury returned a verdict in their favor in that action. The jury verdict and the judgment entered therein was recently affirmed by the Tenth Circuit in *Union Carbide and Carbon Corporation v. Nisley* (10th Cir., 1961), 1962 Trade Cases, Par. 70,222, page 75,805.

[6]Mr. Burwell (USV) testified that "I asked Mr. Blitz [VCA] what he was paying for ore and he told me. I don't remember exactly what it was but it was more than 21 cents. And I asked him to check with Fred Kett [VCA] as to what the prices of ore we agreed to be". (R. 221.)

had "definitely" not offered him more than the "established rates". (Pl. Ex. 72; R. 2159, 631.)

4. Respondents Entered Into Joint Export Orders and Allocated Customers

As already indicated, respondents became particularly concerned about competitors at this time because the European rearmament program which preceded the war in 1939 was generating a new demand for ferrovanadium in Europe and shooting up the export price. (Pl. Ex. 166; R. 213, 1899.) This demand gave independent mills a market which would have permitted them to establish the nucleus of an independent operation and to threaten respondents' monopoly. On March 28, 1940, Mr. Bransome of VCA wrote to a French Company that the high export prices were making for people trying to buy domestic and sell export (Id.). Bransome wrote that they had "this phase under very good control, and if any shipments do get away" "they are very small ones" (Id.).

And pursuant to their conspiracy, respondents divided the foreign orders that did not "get away". For example, in October 1939, a large French concern ordered a shipment of ferrovanadium. (Pl. Ex. 161; R. 208, 1882.) Respondents then commenced a series of intercorporate communications which resulted in the two respondents splitting the shipment. (Pl. Ex. 161 to 166; R. 207-213, 1881-1899.)

In addition, domestic customers were allocated between respondents. For example, in 1940, Burwell, while attempting to sell available uranium concentrates to the Vitro Corporation in Pittsburgh, Pennsylvania, learned

that Vitro could use 100,000 pounds of red cake. He convinced Vitro that the red cake was better suited for their purposes than the hard fused black oxide Vitro was then using. (R. 248-253.) At this time, USV had a tremendous surplus of oxide which threatened to close its mines in the west. (R. 251.) When Burwell enthusiastically reported this prospective sale to Electromet's sales manager he was told that Vitro was a VCA customer and "VCA is selling their vanadium" and "we were not calling on VCA customers". (R. 251.)

And, again, in 1946, Burwell was told by the Sales Manager of Electromet Sales not to mention vanadium to the President of the Crucible Steel Co., because Crucible was a VCA customer and Electromet Sales personnel had been instructed by their superiors not to approach VCA customers. (R. 253-255.)

And, as part of the conspiracy, respondents rigged their bids to the government so as to insure each other a share of the business. (R. 237-240.)[7]

Also, as part of this overall conspiracy to monopolize the vanadium industry, respondents set up a deliberate plan to eliminate any independent competition to this monopoly.

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[7]Mr. Burwell testified that in 1946, he was told that Union Carbide should allow VCA to take part of a government bid because ". . . Mr. Swain has just told me a short time ago that he had prevailed upon the Vanadium Corporation of America to increase the price of ferrochrome silicon to the point that it would not be used as a substitute for low carbon ferro-chrome, and I don't want to antagonize the VCA at this time, and therefore, I would like to have part of this business so we can continue along . . . Mr. Rafferty said 'Mr. Priestley, do I understand that you are still conniving on this business with the VCA? I thought we were all over that kind of monkey-business.'" (R. 239-240.)

C. Respondents carried out a deliberate and avowed policy to eliminate competitors during the period of petitioners' attempted entry into the vanadium industry

Commencing in 1938, the war machines of the world were beginning to prepare for World War II. This rearmament gave a new surge to the Plateau. Higher export prices stimulated entry into the vanadium business. (Pl. Ex. 166; R. 213, 1899.)

USV learned of these intentions by "outsiders", and in September, 1938, Mr. Van Fleet instructed Mr. Burwell to secure accurate and definite information on Colorado Oxide production for the purpose of a report to Union Carbide's Board of Directors. (Pl. Ex. 33; R. 144, 173.) In this request, Mr. Van Fleet wrote (Pl. Ex. 33; R. 144):

> "As I discussed with you the other night on the telephone, it has become very important that we find out accurately and definitely who is producing vanadium ore and where it is going. Along with this, we want to know the quality of the ore shipped so that we can get a line on the pounds of V_2O_5 . . . We may have to do something about this production . . . These are pretty high prices for us, but it may be necessary to finally do something about it."
>
> "I have an idea that this production of ore which is going to Europe and Japan is quite a quantity of V_2O_5 . . . I have been talking about this for some time here in New York, stating that the high prices maintained for V_2O_5 in Europe will invite and stimulate this kind of competition and can eventually support a considerable vanadium business, with possibly later on a plant."

Mr. Burwell acquired this competitive information requested by Mr. Van Fleet and made a complete report to

Mr. Van Fleet, specifically so that he could report it to the Union Carbide Board of Directors. (R. 206-208.) In his report to his superiors, on September 19, 1938, Van Fleet stated (Pl. Ex. 34; R. 146-150, 197, at 150):

> "We have already purchased two or three groups of claims which are potential producers and could be the nucleus of an operation. The intensive development during the past year has made it more imperative to continue this policy, and it now appears that we should purchase some properties and possibly install a small plant in Southeastern Utah to *forestall serious competition.* A definite recommendation will be made on this as soon as the field work has been finished." (Emphasis added.)

Mr. Burwell testified that he was subsequently instructed by his superiors to acquire all properties on the Colorado Plateau that could possibly produce vanadium in competition with USV in order "to keep them off the [American] market as producers of vanadium". (R. 209.) Seldom, if ever, has there been a confession of such flagrant violations of the antitrust laws by an executive officer of an offending corporation. Mr. Burwell testified:

> "Q. State whether or not there was, in September of 1938, a communication from any superior of yours in the United States Vanadium Corporation or Union Carbide with respect to a policy on competitive activities on the Colorado Plateau.
>
> A. Yes, there was.
>
> Q. Was this an oral or a written communication to you?
>
> A. Oral.
>
> Q. And who gave you that oral communication?
>
> A. Mr. Van Fleet.

Q. What was the policy as communicated to you?

A. Well, I was—my instructions were to acquire all the properties on the Colorado Plateau that would possibly produce vanadium in competition with the United States Vanadium Corporation.

Q. To acquire them for what reason?

A. To keep them off the market as producers of vanadium.

Q. What market?

A. The American market."

(Burwell, R. 208-209.)

Mr. Burwell dramatically explained:

". . . at that time we knew we had a billion dollar field, and we were playing the cards for a billion-dollar field. And the way you get a billion-dollar natural resource is to acquire it this way. So all may be the tooth and the fang, but this is the way mining engineers proceed—business people proceed—to acquire, control a natural resource, and this policy was directed to me by Mr. Van Fleet, and it was also directed to me previously by other corporation officials previous to 1938. This was a policy that continued from 1926 and has never been stopped." (Burwell, R. 209.)

Pursuant to his instructions, Mr. Burwell set out to accomplish the brutal and systematic elimination of any independent competition and any independent operations that could possibly nurture a competitive vanadium business at any level of the vanadium business.

Burwell gave detailed direct testimony as to the manner in which USV acquired or eliminated all independent sources of vanadium oxide to which petitioners could look or depend upon for their raw materials. The independent

sources of supply which were specifically eliminated by respondents to keep them out of the American market were:

1. Anaconda Copper Company

USV purchased its production of approximately 100,000 pounds of V_2O_5 per year. (Tr. 206-207.) Burwell testified that USV did not need this oxide at that time (September, 1938), but that USV purchased the Anaconda production only to "keep it off the market", "the American market". (R. 207.)

2. Gateway Alloys

This was a small independent mill which an individual named Brown leased from the Molybdenum Corporation of America. Mr. Burwell received specific instructions "to discourage them in any way we could". (R. 292.) Burwell offered Brown a low price for his oxide and then arranged to lease the surrounding mines from which the mill drew its raw ore. (R. 292.) The mill itself was located down in a canyon, while the mines were about 1500 to 2000 feet above it. (R. 292.) After leasing the mines Burwell stripped them of 12,000 to 15,000 tons of easily accessible and inexpensive-to-mine ore. (R. 292.) These mines were unnecessarily and brutally stripped of the easily accessible ore by USV because "we wanted to keep another vanadium operation from getting started". (R. 292-293.) At this time USV had more than sufficient ore at its Uravan mill area and did not need the Gateway ore. (R. 292-293.) Yet USV hauled the Gateway ore approximately 45 to 65 miles over rough roads from Gateway to Uravan to keep it away from the Gateway mill. (R. 292-293.) The reason for this costly haul was that USV

"wanted to keep another vanadium operation from getting started." (R. 293.)

In regard to this Gateway area, Burwell clearly explained how he utilized his exceptional skill as a mining engineer to eliminate the Gateway mill as a competitive operation both then and in the future. (R. 350-352.) He testified that he simply removed the *easily accessible surface* ore that could be used to support a low cost operation and "implement a small plant". (R. 350-351.) He explained very dramatically that by removing this low cost easily accessible ore only the deeper ore would remain. Burwell, as a mining engineer of great ability and experience, knew and he testified that the means of controlling the "whole thing" or the entire Gateway "district" and any future operation was to remove the surface ores which could permit a small plant to get a successful operation going with a small inexpensive "pot-sized plant" and then utilize its profits from this small inexpensive operation to expand its plant and operation into a larger plant which could then economically take advantage of the deeper ores. (R. 350-352.)

To doubly insure the failure of the Gateway mill, which another ill-fated independent miller by the name of Nisley later acquired, Burwell built a road which led from the Gateway tributary claims in a direction away from the Gateway mill and not to the mill. (R. 351-353.)[8]

The mill went broke in 1940. (R. 293.)

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[8]". . . So all we did to help Mr. Brown out and offer to take care of the situation in controlling the district, which were my instructions and which I carried out, was to take all of the surface ore that was available that could be economically taken down to the

3. Mesa Vanadium Mill

The entire mill was acquired by USV "to keep it out of production". (R. 303.) USV did not need a mill at this time. (R. 303.)

4. Loma Mill

Prior to the time this independent mill was opened, USV was not purchasing ore in any areas close to the Loma Mill. (R. 304.) After the mill was opened as an independent mill, USV started an ore buying station near the mill specifically to keep the ore "away from this mill". (R. 303-306.) This ore was hauled a distance of 150 miles to keep it away from the Loma Mill. (R. 306.) In spite of this additional hauling cost, USV paid no more for the ore around the Loma Mill than it did for its ore at Uravan which was only a 7 to 8 mile haul. (R. 306.) The Loma Mill "closed down for lack of ore". (R. 306.)

5. Mammoth St. Anthony Mining Company

In 1938, USV had "too much vanadium" and Burwell feared he would have to shutdown and lay off its own employees. (R. 178.) Yet USV attempted to buy the Arizona production of this mine. (R. 178.) Burwell testified that they purchased this production to "keep it off the market, the vanadium market" in the United States. (R. 178.)

Gateway plant, and to do that . . . we built the road, not down to Gateway; we built a road up the other side, that went down to Mesa Creek, with bull-dozers and graders which was of no use to the Gateway plant, but over that road we cleaned up all the surface available ores on the claims that bordered the top of the mesa, so when we were through we had all the available cheap ore that could possibly be used to implement a small plant." (R. 351-352.)

Mammoth's mines closed on May 15, 1939. (Pl. Ex. 18; R. 134, 125.)

6. Blanding Mines

USV originally negotiated to acquire Blanding Mines. (R. 179-180.) However, VCA eventually entered the scene. (Pl. Ex. 160; R. 2355-2356, 1849.) Blanding Mines had supplied oxide to petitioners in 1940 and 1941. (Pl. Ex. 118; R. 1065, 2205-2206, 2209.) Mr. Leir's manufacturing associate, Apex, was subsequently informed on January 9, 1942, that Blanding could no longer furnish Apex with a supply of oxide. (Pl. Ex. 131; R. 2229, 1242.) This was on the advice and recommendation of Mr. Garbutt, the owner of Blanding. (R. 1695, 1706-1712.) VCA had started to negotiate for the acquisition of the Blanding properties in the Fall of 1941. (R. 1750.) VCA subsequently acquired the bulk of Mr. Garbutt's properties and leased the property to Blanding Mines. (Pl. Ex. 157; R. 2341, 1791.) VCA subsequently received all Blanding's production. (R. 1758-1767.) A fire occurred in June, 1942 and the Blanding mill was not reopened until March, 1943. (R. 177.) The plant was reopened by Defense Plant funds. In 1944, it was turned over to the government. (R. 1729.)

7. North Continent Mill

North Continent was turned into an ore selling operation in the Spring of 1943, and ceased to mill vanadium oxide. (Pl. Ex. 18; R. 134, 125.) The payments for the ore came from USV, as agents for MRC. (Df. U.'s Ex. U-3-R; R. 565, 914; Df. U.'s Ex. U-3-T; R. 566, 918.)

8. The Durango Mill

This mill was acquired by USV in 1944 because "we wanted to keep control of the production of vanadium" (R. 246) and because some independents were trying to buy it. (R. 242.) USV feared that these independent producers would use this mill to start an independent production of oxide in competition with USV. (Pl. Ex. 38; R. 2117, 244.)

The plant was acquired by USV on July 31, 1944 at a cost of $75,000. (Pl. Ex. 6; R. 2069, 115; Pl. Ex. 38, R. 2117, 244.)

9. Nisley & Wilson Mill

Mr. Nisley, one of the owners of this mill, testified that Burwell actually diverted miners from his scales and offered them premium prices to haul their ore a greater distance to USV's mill at Uravan. (R. 655-656.) The mill closed. (R. 658-663.)

This mill was the same mill which Mr. Brown had tried to operate in the Gateway District and whose tributary ore bodies had been unnecessarily stripped by Burwell to "keep another vanadium operation from getting started." (R. 292-293; 351-352.)[9]

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[9]Nisley & Wilson subsequently filed an action under the antitrust laws in the United States District Court for the District of Utah, Central Division, claiming that they were excluded from the vanadium industry by this same conspiracy and as a result of respondents' activities which are set forth in this brief. A jury returned a verdict in favor of Nisley & Wilson in this action and found that he was excluded by respondents' conspiracy to monopolize and to exclude him as a competitor. The jury verdict, and the judgment entered thereon, was recently affirmed by the Tenth Circuit in the case of *Union Carbide and Carbon Corp. v. Nisley* (10 Cir., 1961), 1962 Trade Cases, Par. 70,222, page 75,805.

After Nisley and Wilson were caused to close their mill, they sought to return to operation by seeking MRC aid, whereupon they were referred to Burwell, USV agent for MRC, who told him that the only condition under which Nisley would be supplied ore purchased by USV for the government account was that the oxide produced from the ore be returned to USV. (R. 660-663.) USV, as agent for MRC, subsequently terminated its contract with Nisley sooner than it terminated its contract with VCA. (R. 666.)

Mr. Burwell's testimony on the policy of excluding all existing and potential competition to Union Carbide and VCA was corroborated by the contemporaneous documents. (Pl. Ex. 33; R. 144, 173; Pl. Ex. 34, R. 146, 197; Pl. Ex. 35; R. 2114, 218; Pl. Ex. 36, 151, 227; Pl. Ex. 37, 152, 243; Pl. Ex. 64; R. 2147, 591.)

VCA knew of USV's plans (Pl. Ex. 55; R. 2133, 324) and carried on their own preemptive acquisitions. (Pl. Ex. 39; R. 2121, 247.)

D. Petitioners' attempts at entry into the vanadium industry

1. There Was an Admitted Policy by Respondents to Exclude Petitioners

Mr. Burwell, in testifying on Union Carbide's refusal to supply petitioners with vanadium oxide in November, 1943, stated that the **ONLY** reason petitioners could not obtain vanadium oxide from Union Carbide was that Union Carbide, pursuant to its conspiracy with VCA, wanted petitioners out of the vanadium business. He testified:

> "Q. (By Mr. Alioto.) Did you know at that time that Mr. Leir, or the Continental Ore Company, were

trying to buy—was trying to buy vanadium oxide from your company?

A. Oh, yes, I heard that at that time.

Q. Do you know why they would not sell it to them?

A. Well, I heard exactly that they did not want to sell vanadium to Mr. Leir because they wanted to keep him out of the vanadium business. *No other reason.*" (R. 547; emphasis added.)

Mr. Burwell further testified that it was the corporate policy of Union Carbide to keep Mr. Leir out of the vanadium business:

"Q. Now, you testified, did you not, that you had heard that Union [Carbide] did not want to sell vanadium to Mr. Leir because they wanted to keep him out of the vanadium business?

A. That's right.

Q. Now, who told you this, Mr. Burwell?

A. Oh, I heard that from Mr. Van Fleet, I heard that from—I heard that in a dozen conferences. I don't recall exactly which one—in the building, 30 East 42nd Street, New York City.

Q. Sort of a rumor?

A. It was my business to be in those meetings. They weren't formal meetings. I heard it from Mr. Van Fleet, I heard the reference to Mr. Leir—I had never met Mr. Leir—I knew nothing of his business excepting it came up second-handed—I heard from Mr. Jacobi.

Q. (By the Court.) Did any of these corporations, now, that you were connected with, make an order, a formal order on policy to that effect, that you know of?

A. No, your Honor. No smart lawyer would let a corporation make a formal order in writing of that

kind of thing. One of our instructions was never to write anything down like that." (R. 611.)

Mr. Burwell further testified that when he proposed a plan for the recovery of uranium, which is found in the same ore which produces vanadium, as the primary metal from the ore, in order to lower costs and stimulate the production of uranium on the Colorado Plateau, that Mr. Bransome told him that his plan would have to be rejected because it would allow vanadium as a by-product to be available in abundance on the free market and thus allow independent competition in vanadium. (R. 222-226.)

Mr. Burwell testified:

"... Mr. Bransome said, 'Blair, supposing—' '... these independent producers of ore had vanadium and uranium ore and brought their ore up to this central plant that you propose. The vanadium then would be turned back to them to sell or to dispose of, isn't that correct?' I said, 'Yes, that's correct.' I said, 'We cannot in this particular emergency deny any person the right to get vanadium back; that this situation had now become bigger than either the Unioin Carbide or the Vanadium Corporation of America in my estimation.'

Then he asked this: 'What would happen if somebody like Continental Ore or Mr. Leir shipped some ore to this central plant? Would he get the vanadium back?'

I said: 'Surely, he would.'

'So would anybody else who owned the ore. They would all have to have the same right.'

Mr. Bransome said, he paced back and forth in his office, he said, '*That would put Mr. Leir in the vanadium business and that is what we are trying to keep him out of.*'

> And I looked at Ted and I turned around and walked out of the door. And that was the end of the conversation.
>
> The plan was never put into effect." (R. 225-226; emphasis added.)

Shortly after this conversation, Mr. Burwell recounted the conversation in a memorandum dated January 22, 1948, to Mr. H. D. Kaiser of the Atomic Energy Commission. (Pl. Ex. 58; R. 2141, 531.)

There also was direct evidence from VCA's own files that it intended to exclude petitioners from the vanadium business, and that it entertained commercial arrangements with Apex to achieve the desired objective at a time when Apex was operating under its contract with petitioners. This will be discussed further below. (Pl. Ex. 62; R. 163-169, 584.)

2. There Was Direct and Circumstantial Evidence That Respondents Prevented Petitioners From Obtaining a Steady, Dependable Supply of Vanadium Oxide, Interfered With Petitioners' Relations With Their Oxide Suppliers, Interfered With Petitioners' Manufacturing Associates and Caused Petitioners' Elimination From the Canadian as Well as the Domestic Vanadium Market

a. Period of Apex Contract (1938-1942)

The contract between Apex and petitioners was dated July 1, 1938. (Pl. Ex. 117; R. 2190, 1050.) It was to remain in force for a period of fourteen years. (Id.) Production under this agreement was not actually begun until approximately August, 1940. (R. 1062.) Although respondents were supporting each other on prices and vanadium oxide supplies under the Maggie C and Dry Valley Agreements, the record showed a concerted refusal to sell

vanadium oxide to petitioners or to Apex during this critical period of first entry.

(1) Refusal of Respondents to Sell Oxide to Petitioners

Petitioners' requests for oxide supplies from VCA in 1939 were rejected. (Pl. Ex. 132; R. 2252-2260, 1245.) Some vanadium oxide supplies were surreptitiously received indirectly from Electromet Sales through a Mr. Poliakoff for a short time. (R. 1228; Df. U's Ex. U-5-L; R. 588, 1228.) Mr. Leir could not get this material directly. (R. 1228.)[10]

The estimated capacity of Apex's ferrovanadium production was approximately 416,000 pounds a year or between 30,000 to 40,000 pounds per month. (Pl. Ex. 146; R. 2270 at 2272; 1320; Wolf, R. 856; Leir, R. 1113. See also Pl. Ex. 140 for Id., R. 544, 1262.)

On March 1, 1940, Apex requested prices on quantity lots of vanadium pentoxide from VCA. (Pl. Ex. 63; R. 170, 778.) No reply was received. (Id.)

On April 8, 1940, Apex requested a response. (Id.) VCA responded to Apex that they had "no material to offer". (Id. at R. 171.) In October, 1940, in reply to an obvious request, Electromet Sales informed Apex that it could not supply Apex with oxide. (Pl. Ex. 128; R. 189-190, 1239.) Yet, at this very time, USV was supplying VCA with toll milled vanadium oxide at a below cost 75¢ a pound. (Pl. Ex. 8; R. 2074, 117.)

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[10]The third page of Exhibit U-5-L shows specifically that the sales were *not* between Electromet Sales and petitioners, but between Electromet Sales and Poliakoff. (Df. U-5-L; R. 588, 1228.) Mr. Leir testified that he could *not* get this material directly. (R. 1228.)

Thus, during that period, Apex's production did not include a single pound from respondents, who held over 90% control of the sources of supply.

The sporadic supplies petitioners were able to acquire were totally inadequate for Apex's continued production of ferrovanadium. (Pl. Ex. 144; R. 2266, 1313; Pl. Ex. 145; R. 194, 1315; Pl. Ex. 146; R. 2270, 1320; D's V's Ex. V-1-Q, R. 2512A, 1145.) Just prior to Apex's notification to Continental on January 27, 1942 (Df. V's Ex. V-1-Y; R. 2519, 1173) and on February 13, 1942 (Df. V's Ex. V-1-Z; R. 602, 1174) of Apex's desire to terminate production, Apex was in short supply of vanadium oxide. In fact, petitioners supply situation was so drastic that they were requesting the intervention of the government in order to obtain oxide from respondents. (Pl. Ex. 144, 145, 146, supra.)

On June 14, 1941, petitioners wrote to Electromet for supplies of vanadium oxide for shipment to Apex. (Pl. Ex. 77; R. 176, 776.) No response was received (Id.). On June 16, 1941, Mr. Leir requested of Electromet that Apex be allowed to convert vanadic acid for the account of Electromet (Id.). This offer was rejected (Id.). On June 16, 1941, Mr. Leir sent a similar request to VCA. (Pl. Ex. 132; R. 2261-2263, 1245.) VCA did not even bother to reply.

On July 7, 1941, petitioners requested that the Office of Production Management intervene in their behalf to secure oxide for them from respondents. (Id. at R. 2265.) Both respondents declined to supply petitioners (Id.).

As a result, in September, 1941, Apex wrote to Mr. Leir that it could not expand its production because of the deficiencies in its sources of supply. Apex wrote:

". . . for as you know we are not getting a sufficient quantity to run our present facilities on half time." (Df. V's Ex. V-1-Q, R. 2512A.)

There can be little question that petitioners were finding it impossible to secure adequate supplies to permit production under its Apex agreement.

From October to December, 1941, petitioners frantically attempted to obtain oxide. Having been turned down by respondents, petitioners centered their attention on obtaining acid from the Defense Plant Corporation Monticello Plant, which was under the administration of VCA. (Pl. Ex. 144; R. 2266-2270.)

On December 13, 1941, approximately one month before Apex notified petitioners of their intention to cancel their arrangement, Apex wrote the Defense Plant Corporation requesting a share of the Monticello oxide production.

Apex stated:

". . . However, we cannot make use of all of our production facilities *due to the lack of raw material* which is fused vanadium pentoxide, and therefore, we would appreciate greatly if you would make it possible for us to secure from the new plant reasonable tonnage of the Vanadium Pentoxide for conversion to Ferro Vanadium." (Pl. Ex. 144; R. 2266.) (Emphasis added.)

And again on December 26, 1941, Apex informed the Vanadium Division of the Office of Production Management:

". . . Our capacity for the production of this material is about 50,000 to 60,000 # of V contained per month but at the present time we are producing only a frac-

tion of this capacity *due to lack of raw material.*" (Pl. Ex. 146; R. 2271-2272.) (Emphasis added.)

These requests were made by Apex at the urging and insistence of Mr. Leir. (Id. R. 2273-2275.) And Mr. Leir himself testified:

"Q. (By Mr. Alioto.) Mr. Leir, in any event, were you having difficulty getting enough of the raw material to supply the Apex contract at this time?

A. My difficulties, or Apex difficulties, if you want to put it this way, to obtain a regular source of supply for raw material had already started, yes.

Q. Were you ever able under the Apex contract up to the time of its termination to get a regular dependable source of vanadium oxide?

A. I was not.

Q. What reasons were assigned by Apex for wanting to get out of the contract?

A. One of the reasons was the inability to obtain such a regular supply." (R. 1079.)

An officer of Apex Smelting, Mr. William R. Bayer, brought to the trial by respondents, admitted that "we just couldn't go out and get the supply" (R. 1301) and that Apex was not operating at full capacity because of the lack of raw materials. (R. 1319.)

Mr. Bransome, President of VCA, as late as June, 1941, foresaw no *shortage* of vanadium. (R. 1072-1079.) Yet during this period petitioners were refused oxide supplies by both respondents and their manufacturing associate, Apex, was experiencing difficulty in obtaining supplies.

(2) Respondents Interfered With the Independent Oxide Suppliers Who Were Petitioners' Source of Supplies

During the Apex period, petitioners' or Apex's vanadium oxide suppliers were: Mr. Ackermann (The Loma Mill), Blanding, Monticello, Mr. Wm. G. Morrison (original operator of The Loma Mill) Nisley & Wilson, and Shattuck (North Continent Mines). (Pl. Ex. 118; R. 2202, 1295, 1065.) These were all independent suppliers. The respondents interfered with these suppliers during the Apex period, with the possible exception of North Continent who shipped approximately 5 tons a month, as contrasted to the capacity of Apex, which was estimated to be between 25 to 30 tons of V per month. (Pl. Ex. 146; R. 2272.)

(a) Loma Mill:

Mr. Burwell described the predatory acts committed by USV against this mill to keep the ore "away from this mill" and eliminating this supplier from the market. (R. 303-306; See this brief page 33.) This mill "closed down for lack of ore" (R. 306) as a result of these tactics.

(b) The Blanding Mines Production:

As was heretofore shown VCA usurped the Blanding Mine Production from Apex and petitioners by direct interference with this source of supply. (See this Brief page 34.) The Blanding Mill had been supplying Apex with vanadium oxide shipments from August, 1940, to January, 1941. (Pl. Ex. 118; R. 2209, 1065; Pl. Ex. 131; R. 2229-2233, 1242.) The relationship between Blanding and Apex was satisfactory. (R. 1746.) In the Fall of 1941, VCA negotiated the acquisition of the vanadium ore

claims of Blanding's lessor, Garbutt. (R. 1950; R. 1750.) Mr. Bransome, President of VCA, went to Los Angeles where he sought out Mr. Garbutt and personally acquired the claims on or about January, 1942. (R. 1949-1950.) It is significant here that Blanding notified Apex that it would no longer sell oxide to Apex on January 9, 1942, less than 20 days before Apex capitulated and notified petitioners that Apex desired to terminate the agreement. (Pl. Ex. 131; R. 2239, 1242; see Pl. Ex. 127; R. 2222, 1239.)

Blanding wired Apex on January 9, 1942:

> "At the advice and recommendation of the owner of our claims, it will be necessary for us to dispose of our product here. We regret very much that we will be unable to deal with you." (Pl. Ex. 131; R. 2239.)

On January 12, 1942, Apex replied:

> "We regret exceedingly to note that you are compelled to dispose of your material in your district, as we enjoyed doing business with you, and *we were looking forward to receiving increasing amounts from you.*" (Id.) (Emphasis added.)

Petitioners desperately pleaded with Blanding for its production. (Pl. Ex. 131; R. 2239-2251.) However, VCA obtained Blanding's oxide production for the price of $1.10 per pound, f.o.b. mill. (R. 1759.) Higher prices offered by petitioners were turned down by Blanding, which was, by that time, under the control of VCA. (Pl. Ex. 157; R. 2341, 1791; R. 1738-1740, 1758-1759.) On March 28, 1942, petitioners offered Blanding $1.20 per pound, 10¢ per pound more than VCA. (Pl. Ex. 131; R. 2246.) Mr. Leir pleaded with Blanding that "you must help us stay in business now, for your sake as well as ours". (Pl. Ex.

136; R. 2244, 1253.) Nevertheless the Blanding production went to VCA.

(c) The Nisley and Wilson Mill:

Mr. Brown's defunct Gateway Mill was acquired by Nisley and Wilson in the Spring of 1941. This was the mill Mr. Burwell had been instructed "to discourage" in "any way we could". (R. 292.) The mill had gone broke in 1940 because of respondents' activities. (See this Brief page 31.) Nisley and Wilson first attempted operations in May, 1941. (R. 646.) Their operation was thwarted by Mr. Burwell who subjected Mr. Nisley's red cake to short weight. (R. 651.) Mr. Nisley then contacted Continental, and commenced production of black oxide in or about October, 1941. (R. 652.) Nisley started shipping 2 or 3 tons a month to Apex. (R. 2209, 693-694.) The stripping of the mines at Gateway, which Mr. Burwell had accomplished "to keep *another vanadium's operation* from getting started" (R. 292-293) and the winter months caused Nisley trouble and his mill experienced intermittent operations from October, 1941 to March 20, 1942. (R. 654.) The mill closed March 20, 1942 for a short period and then reopened in May, 1942. But in June, 1942, just one month after the mill reopened, Mr. Burwell started to divert the miners who were supplying ore to Nisley to Uravan. Mr. Nisley closed down in October, 1942 and remained closed to April, 1943. (R. 657, 662-663.)

(d) Monticello:

These supplies were limited. They consisted of only four shipments from April to September, 1941. (R. 2206.)

(3) Respondents Interfered With Apex Who Cancelled Its Contract With Continental and Agreed With VCA Never to Enter the Vanadium Industry Again

Petitioners' unsuccessful attempts to secure oxide supplies from respondents from 1938 to 1942 have been described hereinabove. (This Brief, pages 40-43.) On January 27, 1942, Apex notified petitioners that it was discontinuing its relations with them. (Df. V's Ex. V-1-Y; R. 2519, 1173.)

However, on February 16, 1942, petitioners had received assurances of governmental cooperation in obtaining additional supplies of vanadic acid and attempted to convince Apex to remain in ferrovanadium production. (Df. V's Ex. V-2-A; R. 603, 1173.) But only four days after this letter was written, VCA held a meeting with Apex which resulted in direct commercial arrangements between Apex and VCA. An agreement was made between Apex and VCA whereby Apex agreed to stay out of the vanadium business, and furnish VCA with Continental's list of suppliers and, in return, VCA would purchase 150,000 to 200,00 pounds of dioxidizing aluminum ingots from Apex over a period of six or seven months for $10,250-$27,000. (Pl. Ex. 62; R. 163-169; R. 1335-1337, 1947-1949.)

This evidence showed that VCA had been in contact with Apex on or about February 20, 1942. (Id.) These negotiations were discontinued. (Id.) However, VCA voluntarily resumed contact with Apex on or about March, 1942. (Id. at R. 167.)

A VCA interoffice memorandum stated:

> ". . . as I had not heard further from Mr. Christiansen [Apex] in this regard I had Larry Johnson cas-

> ually contact him by phone and tell him that I had not received the information that he promised to send." (Pl. Ex. 62; R. 167.)

As a result of this exchange, Apex offered VCA their equipment and offered to supply VCA the names of Mr. Leir's suppliers of ores and oxides. (Id. at R. 168-169.) The commercial arrangements for the purchase of the aluminum ingots by VCA were then made between Apex and VCA. A VCA memorandum dated April 14, 1942 states:

> "We [Apex] had an interesting discussion concerning low copper grained aluminum which they produce and release with necessary priority approval and I therefore turned him over to our Purchasing Department with regard to this item." (R. 169.)

Apex subsequently terminated its association with petitioners. In January, 1943, Mr. Leir again requested Apex to resume production. (Df. V's Ex. V-2-C; R. 2523, 1193.)

b. Petitioners' Attempts to Persist in the Vanadium Business During the War Period After the Loss of Apex (June, 1942 to November, 1943)

Despite the loss of Apex as a manufacturing associate, petitioners persisted in their attempts to succeed in the vanadium business. First they arranged to have Apex continue production from January to June, 1942. Though petitioners were notified by Apex on January 27, 1942, that it was discontinuing its relationship with them, production continued until June, 1942, because Apex was advised by its attorneys that petitioners had a binding agreement with Apex. (Pl. Ex. 62; R. 675-676.) To avoid a lawsuit because of its breach of its contract with petitioners, Apex agreed to convert vanadium oxide for Continental

for a three month period, March to May 1942. (Pl. Ex. 122; R. 2215-2221, 1096.)

In August, 1942, petitioners commenced an independent vanadium operation. They rented a small warehouse in Long Island where they installed a grinder and mixer and started to produce Van-Ex, a vanadium compound in which vanadium oxide was mixed with a flux for direct entry into the steel bath. (Leir, R. 1192-1193, 1197-1198; Wolf, R. 840-845.) This product was in demand by Atlas Steels, a large Canadian Steel Mill. (Pl. Ex. 79; R. 2169 at 2173-2174, 779.)

Petitioners made the Van-Ex by mixing vanadium oxide with exothermic agents and flux. (R. 840-845.) It is noted that respondent Electromet cautioned its salesmen not to sell vanadium oxides with a reducing agent because this product posed an economic threat to their large investments in the furnaces and plants. (Pl. Ex. 73; R. 2160, 631.) Petitioners needed only a small pebble mill to make Van-Ex. (R. 1211.)

(1) The Loss of Independent Suppliers During This Period

The Nisley and Wilson Mill had gone out of production in October, 1942. (R. 655-662.) After that time, its production was placed under the control of USV as agent for MRC, under protest by Nisley.

In the Spring of 1942, USV was appointed as agent for the Metal Reserve Company (MRC), a governmental corporation organized to purchase vanadium oxide for the government. (Df. U's Ex. U-D; R. 2369, 373.)

The chief officers of USV were made the chief officers of USV as agent for MRC. Mr. Van Fleet was Vice Presi-

dent of USV as agent for MRC from 1942 to 1944. (R. 367-368, 338, 2363, 2168.) Mr. Burwell was made Supervising Engineer and Mr. Hill and Mr. Haldane, both USV officers, were named Mr. Burwell's Chief Assistants. (R. 1535, 228.) Mr. G. Donald Emigh, another USV officer, was made Assistant to Mr. Van Fleet in charge of the MRC Agency. (R. 1605.)

Under this agency contract, USV was placed in charge of the government's vanadium ore buying program. (Id.) It was given the authority to pay reasonable prices for the ore, the price not to exceed 50¢ per pound (Id.). The contract specifically provided that USV was to comply with all applicable federal, state and municipal laws, rules, regulations and orders. (Id. at R. 2377, para. 7.)

However, USV, as agent for MRC, established 31¢ as the base MRC price so that it would not be competitive with the 31¢ price USV and VCA had fixed as the price for the ore they purchased for their respective private uses and not for the government account. (R. 1559-1569.) Of course, if USV paid more for MRC ore it would have been required to meet the price for its private ore, which it could not do without violating the price fixing agreement it had made with VCA.

Between May, 1942 and January, 1944, when the Agency power was terminated, *every independent vanadium oxide mill on the Colorado Plateau was turned into an ore selling operation except Nisley and Wilson, and that mill's production was placed under USV's control. By* January, 1944 *not one independent oxide mill was in production.* (Pl. Ex. 18; R. 134, 125; Burwell, R. 209.)

(2) In 1942 and 1943, Respondents Continued to Refuse to Sell Vanadium Oxide to Petitioners

In early 1943, Mr. Leir hoped that he could obtain vanadium supplies from the War Production Board. (R. 1194-1196.) However, in March, 1943, MRC informed Continental that it could not fill Continental's order of 20,000 pounds of vanadium oxide. (Df. U's Ex. U-4-C; R. 567, 940.) Thereafter, in April, 1943, Continental Ore wrote Electromet:

> "We refer to the allocation made out by the WPB under the date of April 7 in our favor in the amount of
>
> 10,000 lbs. of metallic V contained (17,843 lbs.) contained V_2O_5
>
> in Vanadium Concentrate.
>
> "We would very much appreciate your kindly informing us when this material is expected to be ready for shipment so that we may give you our shipping instructions." (Df. U's Ex. U-4-D; R. 569, 942.)

Electromet honored the allocation. (Df. U's Ex. U-4-E; R. 570, 943.) MRC also shipped 10,000 pounds to Continental. (Df. U's Ex. U-2-P, R. 708-709; U-2-Q, R. 709-710; U-3-X, R. 925-926.) Thereafter, on April 30, 1943, Mr. Leir was billed at $1.15 a pound for the contained vanadium oxide. Continental protested the price of $1.15 since $1.10 was the quoted MRC price. (R. 948; Df. U's Ex. U-4-I; U-4-J; U-4-K; R. 575-578, 949-951.)

On May 21, 1943, Mr. Leir wrote Mr. Remmers of Electromet:

> ". . . We are perfectly willing to sign a contract with you for our requirements until the end of the year. At present, these requirements are estimated to amount to 10,000 lbs. of V contained in pentoxide per month." (Df. U's Ex. U-4-M; R. 581, 955.)

Electromet rejected the request, and stated:

> ". . . we will be unable to accept your order at this price since the regular market price of this material is $1.15 per pound of V_2O_5, contained in the compound." (Df. U's Ex. U-4-N; R. 581, 957.)

Finally, on June 1, 1943 Electromet, "in order to close the files on the subject" agreed to take the $1.10 price and refused to sell any more vanadium oxide to petitioners. (Df. U's Ex. U-4-Q; R. 584, 960.)

(3) The Loss of Relations With Climax Molybdenum Co.

Petitioners' request for vanadium oxide from Electromet commencing in April, 1943, was for their expected continued relations with Climax Molybdenum Co. (R. 1018, 978.) Petitioners and Climax had entered into an agreement on February 10, 1943. (Pl. Ex. 111; R. 182, 1014.) Under this contract Climax was to convert 20,000 pounds of vanadium in vanadium oxide into ferrovanadium for petitioners.

At the trial, petitioners made an offer of proof to prove through Mr. Martin Wolf, petitioners' Vice-President, that Union Carbide threatened reprisals against Climax if Climax continued negotiations with petitioners and persisted in the vanadium business. This evidence was excluded by the trial Court.

The offer of proof, in part, as stated by counsel for petitioners to the trial Court, was as follows:

> "Mr. Arrouet said further that the plaintiff, the Continental Ore Company, had no business in the vanadium business. Mr. Arrouet said further to the plaintiff that they had better stay away from Climax and not try to make any arrangements with Climax,

and they were then entering negotiations with them, as the offer of this evidence will tend to show.

"Mr. Arrouet told them to stay away from Climax, and, if Climax got into the business, that Union Carbide would undertake a reprisal against the Climax Molybdenum Company.

"He said, in that connection, that Union Carbide had available at its plant in California, its tungsten operation in California, quantities of molybdenum that they would use against the Climax Molybdenum Company if that company entered into negotiations with the plaintiff to manufacture ferrovanadium for the account of the plaintiff or under a joint operating arrangement with the plaintiff.

"At that juncture this witness, we offer to prove, that this witness said, in substance or effect, 'Does it mean, then, Mr. Arrouet, that the picture of the world is something like this: God told Electromet to make vanadium, tungsten, ferro-manganese and God told Vanadium Corporation to make ferrovanadium and that nobody else would be allowed into these fields?' To which the employee of Electromet Company and the Union Carbide affiliate answered: 'That was just about it.' And 'That's the way it was going to be.'"

"We further offer to prove at this time, that Mr. Arrouet then made an offer which involved giving the plaintiff a little business in the Canadian market if he promised to stay out of it thereafter."

* * * * *

"Mr. Alioto. May I supplement the offer, if your Honor please? We offer to prove at this point that the Canadian Government was totally oblivious to the purpose for which its agent, the Electro Metallurgical Company of Canada, made its decision not to deal

with the plaintiff and to eliminate the plaintiff from the Canadian business." (R. 828-831.)

(4) Complete Prevention and Elimination of Petitioners From Exporting Their Products to Canadian Customers

Atlas Steel, Ltd., a very large Canadian producer of steel, was one of petitioners' largest Canadian customers. (R. 802.) Petitioners' records show shipments of Van-Ex to Atlas Steels in every month from March of 1942 to the end of the year. (R. 802-803.) Shipments stopped beginning in 1943. Petitioners offered to prove that this exclusion was pursuant to the overall conspiracy between respondents Union Carbide (and its affiliate Electro Metallurgical Company, an American Company with head offices in New York) and VCA to monopolize the entire vanadium business, and that the elimination of petitioners by cutting off their Canadian customers, through control of the Canadian subsidiary was another act in furtherance of that basic conspiracy. The evidence with respect to respondents' acts concerning the Canadian situation was not admitted and consequently was withheld from the jury. As a result, the record for review consists of an offer of proof made by petitioners' counsel which appears at pages 801-840 of the record, and an exchange of correspondence between petitioners and Electromet of Canada which appears in Volume IX, pages 438-468 of the record. (Pl. Ex. 80-109 for Id.; R. 438-468, 805-839.)

Petitioners offered to prove that (R. 826-828):

"Now, if your Honor please, we offer through this witness to prove the following facts, that at the end of 1942 and 1943 the Electro Metallurgical Company of Canada, which had been appointed as the purchasing agent by an agency of the Canadian Government,

that is, the purchasing agent for vanadium, determined that it would not permit any further shipments from the Continental Ore Company into the Canadian market. In that connection we offer to prove that he was acting under instructions from the officials of Union Carbide or its affiliate in order to eliminate the plaintiff from the Canadian market."

* * * * *

". . . We tentatively offer to prove in any event that it was the Carbide officials and employees which directed their wholly-owned and controlled subsidiary organization, the Electro Metallurgical Company of Canada, Ltd., to eliminate the plaintiff from the Canadian market, to take away his Canadian customers, and to supply those customers between the Vanadium Corporation of America and Union Carbide.

"We offer to prove in this connection that it was the intent and purpose of the Carbide officials and employees to use the Canadian agency for the purpose of restraining the plaintiff's trade, and specifically for the purpose of carrying out the conspiracy to restrain and to monopolize the vanadium industry in the United States and Canada. He is one of the means in connection with that monopolization and restrain(t) to eliminate the Continental Ore Company from the business."

When petitioners requested an allocation from the Canadian subsidiary to permit them to ship Van-Ex to fill an order of Atlas Steel, the allocation was refused. (Pl. Ex. 100; R. 458, 823; Pl. Ex. 102; R. 460, 823; Pl. Ex. 104; R. 462, 825-826; Pl. Ex. 107; R. 465, 826.) However, VCA was permitted to ship and actually was shipping into Canada during the same period of 1943 and 1944. (Pl. Ex. 17; (1943) p. 5, R. 127; 124, (1944) p. 6, R. 133, 124.) As

a result, petitioners' attorney, a Mr. Code, contacted Mr. Bateman, the Metals Controller of Canada, to complain of the discrimination and elimination of petitioners from the Canadian market. Mr. Code was instructed to have petitioners contact a Mr. Walker of Electromet in New York City who would handle the problem. Petitioners wrote to Mr. Walker. (R. 848; Pl. Ex. 80; R. 438, 805.) Subsequently, and without solicitation, petitioners received a telephone call from M. D. Arrouet in New York City from the Electromet and Union Carbide offices at 30 East 42nd Street in connection with this complaint. (R. 848-850; Pl. Ex. 81; R. 438, 818, 834.) After additional unsuccessful requests to the Union Carbide Canadian subsidiary for permission to ship to petitioners' Canadian customers (Pl. Ex. 82-98; R. 449-456, 818-822) petitioners' Mr. Wolf met with M. D. Arrouet at the Electromet and Union Carbide offices in New York in protest of the continuous refusal to allow petitioners to ship into Canada. (R. 847-850; Pl. Ex. 109, R. 467, 834.) Petitioners offered to prove the conversation quoted above. (R. 829-831; Pl. Ex. 109; R. 467, 834.)

c. Petitioners Persisted in Their Attempts to Enter the Vanadium Industry Following the End of Vanadium Oxide Stockpiling Period. November, 1943 to 1946

(1) Respondents Continued to Refuse to Sell Vanadium Oxide to Petitioners, Who Were Unable to Succeed in Their Vanadium Venture With Imperial Paper and Color Corp.

In November, 1943, the emergency shortage of vanadium oxide was over. (Pl. Ex. 113; R. 184, 1019; Df. U's Ex. U-P; R. 407-414.) Vanadium oxide was in over supply. (R. 547.)

In January, 1944, petitioners entered into a contract with the Imperial Paper and Color Corporation. (Pl. Ex.

110; R. 2175, 1014.) Under the terms of this agreement, Imperial promised to enter into the production of ferrovanadium and appointed petitioners as its exclusive sales agent. (Id.)

Imperial never did produce ferrovanadium for the reason that it could not be assured of regular, steady supply of vanadium oxide. (Pl. Ex. 114, 115; R. 185, 2179, 1021, 1023.)

In November, 1943, petitioners made requests to both Electromet Sales and VCA for monthly supplies of oxide. (Wolf, R. 1012-1013; Burwell, R. 546-547; Pl. Ex. 40, 41, 42; R. 152, 153, 155, 1262, 1264, 1299.) These requests were jointly refused. (Pl. Ex. 42; at R. 154, 157.) The evidence very specifically showed that petitioners made these requests for vanadium oxide from the respondents in November, 1943, in order to supply their manufacturing associate, The Imperial Paper and Color Corp., with vanadium oxide. This supply of vanadium oxide would have permitted Imperial to start production of ferrovanadium under a contract which petitioners were negotiating with Imperial, which petitioners were positive they could make (R. 1013), and which they eventually made. (Pl. Ex. 110, R. 2175, 1014.) Mr. Wolf testified:

> "Q. (By Mr. Alioto) Now, Mr. Wolf, you were with Continental Ore Company in November of 1943, were you not?
>
> A. That's correct.
>
> Q. And you were with them at the time that the request was made in November to both Electro Metallurgical Sales Corporation and Vanadium Corporation of America to supply you with regular monthly supplies of vanadium oxide?
>
> A. That's correct.

Q. Now, what was the situation in November of 1943 with respect to contractual arrangements with any proposed manufacture of ferrovanadium? Did you have any at that time?

A. In November of '43?

Q. Yes.

A. We had a contract with Imperial Paper.

Q. Well, I think your dates may be a little awry, but to establish those definite dates on matters on which both—Mr. Archer. That's January, 1944, whatever the date is. We can develop that.

A. We had negotiations at that time which we were sure would lead to a contract with Imperial Paper, so we were trying to,——

Q. (By Mr. Alioto) All right. The contract was actually made in January of 1944, is that correct?

A. Yes. But we were trying to get a basis of raw materials for our negotiations for the forthcoming contract." (R. 1012-1013.)

The specific reason for respondents' refusal to supply petitioners at this exact time was that Union Carbide desired to exclude them from the industry. (Burwell, R. 546-547.) Burwell testified that Electromet did not sell oxide to Mr. Leir at this very time because respondents wanted "to keep him out of the vanadium business." (Burwell, R. 547.)

Imperial investigated all sorts of alternative sources of supply, including lead vanadate, flue dust from ocean going vessels, vanadium ash, and cuprodescloizite ores. (R. 877-907.) But Imperial concluded that there was not enough assurance of a steady, dependable source of supply to justify the manufacture of ferrovanadium. (Pl. Ex. 114; R. 185, 1021; Pl. Ex. 115; R. 2179, 1023.)

Therefore during the period 1938 to 1944, petitioners or their associates made the following requests for vanadium oxide from respondents:

Date	Request	Action by Respondents
y 28, 1939[11]	10,000 lbs. a year from VCA	No response
. 17, 1939[12]	5,000 lbs. oxide from VCA	Refused[13]
. 17, 1939[14]	4,000 lbs. ferro-vanadium from VCA	Refused[15]
rch 1940[16]	Vanadium Oxide from VCA	Refused[17]
. 17, 1940[18]	Oxide from Electromet	Refused[19]
ne 14, 1941[20]	Vanadic Oxide from Electromet	No response[21]
ne 16, 1941[22]	That petitioners be allowed to convert oxide for VCA	No response
ne 16, 1941[23]	That petitioners be allowed to convert oxide for Electromet	Rejected[23]
ly 16, 1941[24]	Through OPM, Vanadium Section, Petitioners asked for oxide from VCA	Refused
ly 16, 1941[25]	Through OPM, Vanadium Section, Appellants asked for oxide	Refused
ay 21, 1943[26]	That Electromet fill Continental's oxide requirements for the remainder of the year	Unable to accept[26]
ov. 16, 1943[27]	10,000 to 15,000 lbs. Vanadium oxide from VCA per month, any fixed length of time	Refused[27]
ov. 17, 1943[28]	10,000 to 15,000 lbs. vanadium oxide from Electromet per month any fixed length of time	Refused[28]

[11]Pl. Ex. 132; R. 2258, 1245
[12]Pl. Ex. 132; R. 2259-2260
[13]Pl. Ex. 132; R. 2260
[14]Pl. Ex. 132; R. 2259-2260
[15]Pl. Ex. 132; R. 2260
[16-17]Pl. Ex. 63; R. 1239, 170-171, 778
[18-19]Pl. Ex. 128; R. 189; See Df. V's Ex. V-1-N; R. 2506, 1139
[20-21]Pl. Ex. 77; R. 176, 177, 776
[22]Pl. Ex. 132; R. 2261-2262, 1245
[23]Pl. Ex. 77; R. 176-177, 776
[24]Pl. Ex. 132; R. 2265
[25]Pl. Ex. 132; R. 2265
[26]Df. U's Ex. U-4-M; R. 580, 955; Df. U's Ex. U-4-N; R. 581, 957
[27]Pl. Ex. 40; R. 153, 269; Pl. Ex. 41; R. 154, 270
[28]Pl. Ex. 42; R. 155-157, 270

(2) Respondents' Monopoly Power Caused the Small Oxide Producers to Cease Production in 1944

(a) Nisley & Wilson

In December, 1943, Nisley & Wilson were notified that their MRC Tolling Agreement was being cancelled. (Df. U's Ex. U-2-U; R. 2440, 729.) However, on or about December, 1943 in instructions from MRC, USV had been given the discretion by MRC to extend Nisley & Wilson's MRC Tolling Agreement beyond January 1, 1944, if USV believed that Nisley & Wilson's program should be continued "in the interest of the procurement of *other* products than vanadium."[29] (Df. U's Ex. U-P; R. 408-409, 407.)

Nisley testified that the Nisley-Wilson Mill went out of production permanently in January, 1944, for the reason that the mill could no longer fight the monopoly control and tactics of respondents. (R. 667-668.)

Mr. Nisley testified:

"Q. Did you go back into business privately after January 1, 1944?

A. No, we did not.

Q. Why not?

• • •

A. We seriously considered it, and if the United States Vanadium had not stripped the mines of Gateway Alloys, there would have been no problem. We

[29]By the Fall of 1942, the United States had formed the Manhattan District to develop the Atomic Bomb. Union Carbide was appointed agent by the Government through the Union Mines Development Corporation, which was a subsidiary of Union Carbide. Like the USV-MRC agency, Union Carbide's officers were made officers of Union Mines. (Df. U's Ex. U-Q; R. 2397, 418.) The "other products" referred to in the discretion given USV by MRC was obviously uranium.

would have had plenty of ore supplied to do it, but the mines were still under contract to Metals Reserves Company——

• • •

I say, the mines were still under contract to Metals Reserves Company. In view of the things we had been up against, we felt we could not buck anymore and we closed down." (R. 667-668.)

(6) Respondents Directly Thwarted Petitioners' Plan to obtain or erect a ferrovanadium plant on the Colorado Plateau

In February 1944, Mr. Leir and the independent miners on the Colorado Plateau, including Mr. Bigler, one of the owners of Blanding Mine, met in Grand Junction, Colorado, to discuss the organization of a group of independent ore producers for the purpose of building a mill which would have assured sources of ore supply for it. (R. 1775-1777.) Mr. Leir came to Grand Junction on the urging of Mr. Bigler's associate, Mr. Dan Milenski. (Df. V's Ex. V-2-K; R. 2533-2544; 1715.) Mr. Leir offered to purchase Blanding's entire production and further promised that if Blanding produced 50,000 lbs. of vanadium oxide a month, "Continental undertakes to construct a plant in the State of Colorado for the utilization of its process for the manufacture of ferrovanadium." (Id., R. 2542.) Blanding questioned the organization of an association. (Id. at R. 2548-2549.) Mr. Leir replied:

"As long as your output is only 15,000 lbs. per month there are no particular difficulties with regard to our own outlets, but the moment you achieve a larger output, we would like to see an 'association" created, because the 'association' would give us a better

standing in the marketing of the finished product." (Id. R. 2251-2253 at 2252.)

But while the independent producers and Mr. Leir were formulating such plans, USV and VCA who foresaw the possibility of a competitive production, commenced plans to acquire and maintain control of the government mills which could be used in order to thwart such programs.

On February 29, 1944, Mr. Burwell wired Mr. Haldane that Brinker, Sitton and other promoters were trying to acquire the Durango Mill. (Pl. Ex. 37; R. 243.) When Union Carbide heard of these plans it moved swiftly and acquired the mill at a cost of approximately $75,000. (Pl. Ex. 38; R. 2119, 244.) USV at that time had an option to purchase the mill for its cost less depreciation. (R. 241.) Mr. Burwell testified that USV acquired the Durango Mill after this exchange of correspondence warning that the independents were planning to acquire the Durango Mill. USV "wanted the plant to keep control of the production of vanadium" (R. 241-247 at 246) and because these independents were trying to buy it. (R. 224.) One of the reasons for the acquisition of the Durango Mill was:

> "1. To maintain its position in the vanadium industry in the southwest. Repeated reports have reached this company of plans of outsiders to acquire the plant in the event United States Vanadium Corporation decides not to exercise its option. The injection of additional operators in this field would undoubtedly seriously disturb conditions in the vanadium industry in the post-war period." (Pl. Ex. 38; R. 2117, 2119.)

And on February 15, 1945, VCA acquired the Monticello Plant under a lease with the Defense Plant Corporation. (R. 2070.) With this acquisition all the vanadium oxide plants on the Colorado Plateau were controlled and operated by the respondents who, by then, enjoyed a 100% control of the production of ferrovanadium.

(3) The Period 1946 and Thereafter

On June 27, 1946, respondents were indicted for criminal violation of the Sherman Act. (R. 22, 30, 40.) On September, 1948 the indictment was dismissed and was superseded by an information. In 1946, after criminal action investigations had been started, Electromet Sales offered Continental requirement contracts for its *domestic* manufacturing requirements and even then limited the contracts only to petitioners' domestic requirements. (Df. U's Ex. U-4-X, R. 2459, 977; U-4-Y, R. 982; U-4-Z, R. 2461, 982; U-5-A, R. 983; U-5-B, R. 984; U-5-H, R. 997, R. 978-980.) They determined that no longer could they persist in their attempted entry into the vanadium business until the government action was finalized and the industry "opened up by government action". (R. 978-980.) Mr. Wolf testified that he considered such offers had come far too late:

> ". . . I don't think, first, that it is very good practice to base an investment and a business on raw materials procured from your competitors after your competitors have tried by all means possible to eliminate you from the market." (R. 979.)

(4) Petitioners Experienced Outstanding Financial Success in All Fields of Minerals, Metals and Alloys Except Vanadium

Petitioners' books and records showed in vanadium a growth of production and sales during the period 1939 to 1942. (Pl. Ex. 119, R. 2212, 1089.) Profits were made during this period. (Id., R. 2213.) Vanadium sales went from $60,000 in 1939 to $250,000 in 1942. Apex alone had produced 70,000 lbs. of ferrovanadium in 1941 and 28,000 pounds in 1942. (Id.) But petitioners' business suffered a severe decline in 1943 and the sales in 1944 and 1945 were token only. Whereas petitioners had shipped 71,555 lbs. of Van-Ex to Canada in 1942, these shipments fell to only 6,480 lbs. in 1943. (Pl. Ex. 79; R. 2169, 797.) Failure in this field was an exception to petitioner's outstanding successes in other minerals, metals and alloy fields. For example in 1942, petitioners sold $252,000 of fluorspar and $249,000 in vanadium products. (Pl. Ex. 125 for Id.; R. 539, 1106.) By 1945, petitioners' fluorspar sales had increased to $779,000 but their vanadium sales had dropped to $17,529. By 1957, petitioners had sold over $6,500,000 of fluorspar.

Petitioners expanded with other products such as coal, borite, fertilizers, lead and zinc, cement, aluminum, iron ore, asphalt, magnolith. Continental's group of companies operating in these fields grew from a net worth of $36,674 in 1939, when vanadium was the principal product, to a net worth of $5,339,240 in 1957. (Pl. Ex. 124 for Id.; R. 537, 1103.)

5. OPINION OF THE COURT BELOW

The Court below affirmed the judgment against petitioners on the ground that even assuming *all* petitioners' contentions, the trial Court should have granted a directed verdict for respondents as a *matter of law*. The lower Court held that the directed verdict should have been granted because petitioners had not proved a causal connection between their injury and respondent's violations of the antitrust laws, both of which the lower Court *assumed to have occurred* for the purposes of its opinion.

Although, for the purposes of its opinion, the lower Court assumed that the conspiracy alleged by petitioners occurred and that petitioners were in fact eliminated from the vanadium industry, it did not review the evidence as a whole, but, instead, limited the case to four specific periods of time:

(1) *The Apex contract period* involving the production of ferrovanadium: (2) *The Van-Ex period* which followed the Apex cancellation and which involved the distribution and sale of Van-Ex: (3) *The Climax arrangement* which the lower Court arbitrarily limited to one contractual arrangement; and (4) The 1944 and 1946 period in which petitioners attempted to manufacture ferrovanadium on a permanent basis with *Imperial*. In considering these periods, the lower Court sat as a trier of fact and rationalized the evidence, drawing inferences and making factual determinations which are reserved for triers of fact, the jury in this case, and not for appellate Courts.

The lower Court further held that petitioners were required to prove that their continuous lack of steady sup-

plies was solely the result of respondents' refusals to deal with them and respondents' efforts to prevent them from obtaining raw materials elsewhere, and, as a factual determination, held that there was no evidence upon which reasonable men could make such findings. In making this factual determination, the lower Court reviewed the record and resolved all factual conflicts in favor of respondents. It failed to resolve factual conflicts in favor of petitioners as it was required to do under rules of judicial review and failed to give petitioners the benefit of every inference or presumption to which the evidence and the law entitled them.

The Court below found:

(1) *Apex Period:* Since respondents had not been requested to sell vanadium oxide since March, 1940, there could be no causal relationship between petitioners' lack of supplies and the Apex contract termination in January, 1942;

(2) *Van-Ex:*

(a) Petitioners' refusal to buy Nisley & Wilson's production in June, 1943, October, 1943, and January, 1944 precluded petitioners from arguing that respondents prevented the acquisition of raw materials at this time;

(b) Petitioners' inability to sell Van-Ex to their Canadian customers because of the action of one of Union Carbide's subsidiaries was the result of governmental action and, therefore, could form no part of petitioners' proof;

(3) *Climax:* The record was limited to one single contract and an offer of proof to show that Union Carbide

had threatened petitioners and Climax with reprisals "appears to be directed against a corporation with which Continental had no business, since the nature and existence of the alleged 'pending negotiations' are not shown by the record.";

(4) *Imperial:* The failure to request supplies from respondents during the period January, 1944 to 1945 prevented petitioners from claiming injury because of respondents' joint refusal to deal with petitioners. The lower Court found as a factual determination, that though in November, 1943 petitioners had sought vanadium oxide, some Nisley & Wilson production was available to petitioners and, therefore, respondents' joint refusal had no exclusionary effect on petitioners.

These determinations were factual conclusions the lower Court drew from the evidence presented. In so doing the Court below reviewed the evidence of "causation", resolved factual conflicts against petitioners and drew inferences and presumptions from the evidence which reasonable men could find otherwise. The fact that the trial Court submitted the case to the jury after two motions for a directed verdict had been made by respondents is an indication that even the trial judge thought that the evidence presented a factual jury issue.

In deciding the case in this manner, the Court below failed to even consider the many errors which petitioners raised as points of appeal in their Appeal to the Ninth Circuit and, which, without any doubt, had a strong effect on the jury verdict. For this Court's information only, these alleged errors are set forth in Appendix A to this Brief.

VI.

SUMMARY OF THE ARGUMENT

A purpose of the Congressional support of private actions under the antitrust laws is to afford a redress for wrongs done against a persistent and capable competitor who has been excluded from the competitive market pursuant to a conspiracy to monopolize. *Standard Oil Co. v. United States,* 221 U.S. 1 (1911); *Klor's, Inc. v. Broadway-Hale Stores, Inc.* (1959), 359 U.S. 207. The antitrust laws provide free and open access to the market place free of such a conspiracy and free of acts of impact committed pursuant to such a conspiracy. *American Tobacco Co. v. United States* (1946), 328 U.S. 781; *United States v. Griffith,* 344 U.S. 100 (1948); *Baush Machine Tool Co. v. Aluminum Co. of America* (2 Cir., 1934), 72 F.2d 236.

Congress in adopting the Sherman Act created a statutory cause of action providing for the recovery of damages from wrongdoers who interfere with free access to the market place. *United States v. Addyston Pipe & Steel Co.* (6 Cir. 1899), 85 Fed. 271, 279.

In the instant case, respondents acquired a 100% monopoly in the vanadium industry, which the Court below admitted was achieved pursuant to an intent to monopolize and with an intent to eliminate all competitive forces from the vanadium industry, one of the competitors being petitioners. In addition, it was specifically confessed by an executive officer of USV, one of the respondent companies, that it was their specific intention to eliminate these petitioners from the vanadium industry. This same officer testified that the President of VCA told him that

he did not want petitioners in the vanadium industry. Thus, we have here an admitted violation of the antitrust laws, an admitted intent to eliminate petitioners and a 100% monopoly power in respondents to do so. Petitioners were in fact eliminated from the vanadium industry after respondents committed innumerable predatory acts which were specifically and deliberately intended to interfere with petitioners' sources of supply, with petitioners' manufacturing associates and with petitioners' customers. In conjunction with these acts, respondents, who were supplying each other with supplies, jointly refused to deal with petitioners. We have, therefore, two respondents who possessed a monopoly power specifically conspiring to eliminate petitioners as a competitor and the actual in fact elimination of petitioners from the industry.

At the trial, respondents maintained that petitioners' elimination from the vanadium industry was caused by forces other than their conspiracy. However, petitioners contend that under the evidence in this case the question of legal causation is a factual question which must be submitted to the jury and that under *Story Parchment Co. v. Paterson Parchment Paper Co.*, 282 U.S. 555 (1931) an appellate Court cannot take this question away from the jury by reviewing the record and deciding it as a *matter of law.* Causation is a question of fact and when facts relating to causation are in conflict they are to be submitted to the jury in a jury case. *Jacob v. City of New York*, 315 U.S. 752, 756-758 (1942).

Rules relating to intentional torts are applicable in a Sherman Act case such as we have here. This is really

not a "legal cause" action. The "legal cause" doctrine has no place in this case on this record. Two monopolists intended to eliminate petitioners as part of a conspiracy to monopolize. Petitioners were in fact eliminated. They were eliminated after many wrongful and predatory acts had been committed against them, their suppliers, their associates and their customers, in violation of the antitrust laws. Respondents intended to exclude petitioners and they did so. Respondents must be held for the results they intended by their acts in violation of the antitrust laws. Causation is proved when the plaintiff proves impact or contact of such wrongful acts on his business. Restatement Torts, §§ 613-17; §§ 279-280.

This Court has specifically repudiated the use of "legal cause" to prevent the recovery of damages from a wrongdoer in *Story Parchment Co. v. Paterson Paper Co., supra,* and in *Bigelow v. RKO Radio Pictures, Inc.,* 327 US. 251 (1946). The decision by the Court below admits that it refused to follow the *Bigelow* case solely on the ground that *Bigelow* involved general losses inflicted by the defection of countless, individual customers. But this aids petitioners, for *Bigelow* was concerned with the "natural tendency" of acts in restraint of trade on a continuing business. In the instant case, there was direct impact and contact, as well as natural tendency to harm a persistent business venture which tried to succeed in the vanadium industry. It was denied this opportunity by being eliminated pursuant to respondents' conspiracy and their intent to exclude petitioners. The action then is indistinguishable from *Story Parchment Co. v. Paterson Parchment Paper Co.,* 282 U.S. 555 (1931). In the *Story Parch-*

ment case, the issue of legal cause was held to be a factual question to be decided by the jury in a Section 2 conspiracy to exclude action involving facts similar to those involved in the case at bar. The principles set forth in the *Story Parchment* case were erroneously denied to these petitioners.

Moreover, the Appellate Court below, in deciding whether a directed verdict should be granted on the issue of causation as a matter of law, did not view the evidence as a whole, did not allow petitioners the benefit of all their evidence, did not allow petitioners the benefit of all the inferences and presumptions to which the evidence entitled them and did not resolve all the conflict of evidence in favor of petitioners as the rules applicable to judicial review required it to do. This procedure was not only contrary to appellate procedure but is in direct conflict with this Court's opinion in *Beacon Theatre, Inc. v. Westover,* 359 U.S. 500 (1959). In effect, petitioners were denied their right to a jury trial free from prejudicial error. Instead the Court below required petitioners to act to circumvent admitted violations of the antitrust laws by respondents. These standards were not reasonable under the facts of the case and clearly against established judicial enforcement of the antitrust laws. The Sherman Act creates duties on the part of monopolists and does not allow these wrongdoers to expect the law to soften the impact of their wrongs. *United States v. Griffith,* 334 U.S. 100 (1948); *Gamco, Inc. v. Providence Fruit & Product Bldg.* (1 Cir., 1952), 194 F.2d 484; *American Federation of Tobacco Growers v. Neal* (4 Cir., 1950), 183 F.2d 869.

Respondents were engaged in an overall conspiracy to monopolize the vanadium industry. Part of that conspiracy was to eliminate the petitioners from the Canadian market by preventing them from shipping vanadium products to their Canadian customers, particularly Atlas Steel, Ltd., one of the largest Canadian Steel companies. This was accomplished by utilizing Electromet of Canada, a wholly owned and controlled subsidiary of one of the respondents. Electromet of Canada, pursuant to an agency agreement with the Metals Controller, an agent of the Canadian government, completely controlled the importation and allocation of vanadium products into Canada during the war. In furtherance of their conspiracy, respondents used this agency position to prevent petitioners from selling to their Canadian customers and to allow only respondents to ship their products into Canada. It is clear that the unlawful use of the Canadian subsidiary for the purpose of violating the antitrust laws did not immunize respondents from liability. The fact that the Canadian subsidiary had an agency agreement with the Canadian government did not permit the respondents to conspire to use that agency to eliminate petitioners from the Canadian market. The citation by the Court below to *Eastern Railroad Pres. Conf. v. Noerr Motor Frgt., Inc.*, 365 U.S. 127 (1961) for the proposition that respondents' conduct in this respect did not violate the Sherman Act is patently erroneous. The *Noerr* decision held that the antitrust laws did not apply to joint action to lobby or to influence the passage of legislation, which is not at all involved in the case at bar.

The *Noerr* case does not apply to ordinary commercial activity which discriminates against outsiders. The Sherman Act does not allow immunity or exemption for commercial conduct or activity working on the free flow of interstate and foreign commerce. ***Maryland & Virginia Milk Producers Ass'n. v. United States,*** 362 U.S. 458 (1960); ***United States v. Socony Vacuum Oil Co.,*** 310 U.S. 150 (1940); ***United States v. Sisal Sales Corp.,*** 274 U.S. 268 (1927); ***United States v. Deutsches Kalisyndikat Gesellschaft*** (S.D. N.Y. 1929), 31 F.2d 199.

VII

ARGUMENT

A

QUESTION 1

THE DETERMINATION BY AN APPELLATE COURT OF THE QUESTION OF CAUSATION AS A MATTER OF LAW IN AN ACTION BROUGHT UNDER SECTIONS 1 AND 2 OF THE SHERMAN ACT INVOLVING AN ADMITTED CONSPIRACY TO MONOPOLIZE BY RESPONDENTS HOLDING 100% OF THE INDUSTRY, AFTER PROOF OF AN INTENT BY RESPONDENTS TO ELIMINATE PETITIONERS AND THE SHOWING OF PERSISTENT AND BONA FIDE EFFORTS BY PETITIONERS TO ENTER THE INDUSTRY, COUPLED WITH PROOF OF DIRECT AND IMMEDIATE IMPACT AND HARM CONSISTING OF RESPONDENTS' REFUSALS TO DEAL, INTERFERENCES WITH PETITIONERS' SUPPLIES AND MANUFACTURING ASSOCIATES, ORDERS TO LEAVE THE INDUSTRY, THREATS OF REPRISALS AGAINST PETITIONERS' MANUFACTURING ASSOCIATES, AND THE ELIMINATION OF PETITIONERS' EXPORT MARKET BY THE USE OF A SUBSIDIARY IS CONTRARY TO THE DECISIONS OF THIS COURT, THE PURPOSES OF CONGRESS AND THE JUDICIAL APPLICATION OF THE SHERMAN ACT

A. The decision below is in basic conflict with the purposes of Congress in establishing liability on those who conspire to monopolize, with the decisions of this Court which have rejected the determination of legal cause as a matter of law in Sherman Act litigation, and with decisions of this Court which allow damages to those who suffer from the natural consequences of wrongful and intended acts

The Sherman Act is a Congressional determination that intentional acts aimed at the destruction of competitors are actionable by those who are the objects of the restraints. As a matter of judicial enforcement of Congressional purpose, proof of a conspiracy to monopolize and to exclude a competitor creates liability, and causa-

tion is proved upon the showing of impact or contact and the in fact elimination of a persistent competitor.

We respectfully submit that even though the Court below conceded that the antitrust laws had been violated by respondents, its decision requires plaintiffs in a private antitrust action to be subjected to a rigorous factual test that the cause of their injury be proved to a reasonable certainty as a matter of law, a test which is not warranted by judicial construction of Congressional purposes. The concept of "legal cause" as applied by the lower Court has never been applied to an action where there has been direct, immediate contact on a business pursuant to a plan and intent to monopolize and to exclude and the actual in fact exclusion of the business. Petitioners respectfully submit that in such a setting the application of the test of "sufficiency of causation" or "proof of causation to a reasonable certainty" or "legal cause" conflicts with the very nature and meaning of a private antitrust action as intended by Congress and places the judiciary in an antagonistic position to the purposes of Congress. The lower Court decision applies general tort doctrines which were specifically rejected by this Court in *Bigelow v. R.K.O. Radio Pictures*, 327 U.S. 251 (1946) and which have no application whatsoever to a conspiracy to monopolize case. *Story Parchment Co. v. Paterson Parchment Paper Co.*, 282 U.S. 555 (1931).

A private litigant under Section 4 of the Clayton Act need only prove a violation of the general prohibitions on unreasonable restraints of trade and that he has thereby suffered injury. *Radovich v. National Football League*, 352 U.S. 445 (1957). The Sherman Act violations

encompassed here involve the commission of *intentional* acts specifically designed to interfere with the free workings of the market place and natural forces of supply and demand. Where the conduct proved is the kind of predatory business aggression which stems from a conspiracy to monopolize, the private party need only prove the contact or the impact of the combination upon his business to pass the test that he "has thereby suffered injury". This is so as a matter of judicial interpretation of Congressional purposes. The act of 1890 was a statutory adoption of common law principles voiding commercial activities held to be in restraint of trade. The business conduct involved was intentional and, as a matter of law, not justified by the rules of competition.

As stated by this Court in *Standard Oil Co. v. United States,* 221 U.S. 1, 58 (1911), the law denounced acts which:

> ". . . give rise to the inference or presumption that they had been entered into or done with the *intent to do wrong* to the general public and to limit the right of individuals, thus restraining the free flow of commerce and tending to bring about the evils, such as enhancement of prices, which were considered to be against public policy . . ." (Emphasis added) (p. 58).

The Sherman Act allowed recovery for intentional business invasions of the "right of individuals". The private right of recovery under the Sherman Act extended the benefits of the principles of damage law providing a redress where a wrong has been done to business conduct banned by the Act. The effect of the Act of 1890 was to give a cause of action to those who suffered by business

restraints. If a person was harmed in his business by conduct in restraint of trade he was considered directly injured. *United States v. Addyston Pipe & Steel Co.* (6 Cir. 1899), 85 Fed. 271, 279; *Wheeler-Stenzel Co. v. National Window Glass J. Ass'n.* (3 Cir. 1907), 152 Fed. 864, 874; *Albert Pick-Barth Co. v. Mitchell Woodbury Corp.* (1 Cir. 1932), 57 F.2d 96; *Monarch Tobacco Works v. American Tobacco Co.* (Cir. Ct. W.D. Ky. 1908), 165 Fed. 774, 777; *A. C. Becken Co. v. Gemex Corporation* (7 Cir. 1959), 272 F.2d 1.

A Congressionally supported cause of action for intentional restriction of the free market place became established and judicial principles applicable to intentional torts were imposed. It is elementary that, under tort law, plaintiff proves liability when he proves acts intentionally committed to cause harm and the impact or contact of those acts upon him. An intentional act plus contact creates liability. (Restatement Torts, §§ 13-17; §§ 279-280.)

Once liability is established, the wrongdoer is liable for all the natural consequences of his intended acts. Restatement Torts, § 915:

> "A person who commits a tort against another for the purpose of causing a particular harm to the other is liable for such harm if it results, whether or not it was expectable, except where the harm resulted from an outside force, the risk of which was not increased by the defendant's act."

See also 15 Am. Jur., Damages, §§ 65-70.

Under tort law, respondents are viewed as intentional wrongdoers and are liable for the result they intended to bring about by their deliberate violations of Congres-

sionally established rules, the result in this case being admittedly the elimination of petitioners, upon the showing of impact or contact on petitioners' business. We respectfully submit that there is ipso facto presented a factual issue on causation when it is shown that the conspiracy to monopolize was intentionally entered into, had as its goal the exclusion of competitors, involved acts in violation of law which affected and had an impact on competitors and the intended exclusion results. "It is generally agreed that results intended by an actor are proximate if they, in fact, take place." McLaughlin, *Proximate Cause,* 39 Harvard L.R. 149, 151 (1925). See also Terry, *Proximate Consequence in the Law of Torts,* 28 Harvard L.R. 10, 17 (1914); Edgerton, *Legal Cause,* 72 U. of Pa. L.Rev. 211, 343, 358-359 (1924); Smith, *Legal Cause In Actions of Tort,* 25 Harvard L.R. 103, 228-229 (1911).

In the instant case, petitioners showed that it was the intent of respondents' conspiracy to monopolize and to eliminate all competition, specifically including petitioners herein. Mr. Blair Burwell, the chief executive officer of one of the respondents, so testified. In fact, for the purposes of its opinion, the lower Court *admitted* this. Petitioners also showed that they were eliminated from the vanadium business and suffered injury thereby. This also the Court admitted for the purposes of the opinion. Therefore, the result which respondents intended actually occurred.

Petitioners' evidence showed that pursuant to the conspiracy, which was directly aimed at petitioners and other competitors, respondents did the following:

(1) Withheld over 90% of the supply of vanadium oxide from petitioners during the period 1939 to 1946. (Pl. Ex. 132, R. 2258-2265, 1245; Pl. Ex. 65, R. 170-171, 778; Pl. Ex. 128, R. 189-190, 1239; Pl. Ex. 77, R. 176-177, 776; D's. U. Ex. U-4-M, R. 580, 955; D's. U. Ex. U-4-N, R. 581, 957; Pl. Ex. 40, R. 153, 269; Pl. Ex. 41, R. 154, 270; Pl. Ex. 42, R. 155-157, 270.)

(2) Directly interfered with and prevented petitioners' independent avenues of supplies from producing or shipping vanadium oxide to petitioners. (Pl. Ex. 118, R. 2202-2211, 1065; Nisley & Wilson, R. 654-668); (Loma (Morrison, Ackerman), R. 303-306; Blanding, Pl. Ex. 131, R. 2234-2251, 1242; R. 1738-1759; R. 1950; Pl. Ex. 157, R. 2341-2352, 1791; R. 1950; North Continent, R. 483-484; D's. U's Ex. U-2-E, R. 481-482; D's. U's Ex. U-3-R, R. 565-566, 915; D's. U's Ex. U-3-T, R. 918, 566.)

(3) Directly induced petitioners' manufacturing associates to discontinue business relations with petitioners. (Pl. Ex. 62; R. 163-169, 584; R. 1335-1337, 1072; 1947-1949.)

(4) Ordered petitioners to stay out of the vanadium business and threatened commercial reprisals to those who associated with petitioners. (Offer of Proof, R. 823-829.)

(5) Restricted petitioners' exports to Canada so as to deprive petitioners of an important market for their products. (Offer of Proof, R. 826-868.)

It is undeniable that in each of these activities:

(a) Respondents violated the Sherman Act; (b) Respondents intended to injure petitioners, and (c) Respondents' conduct had a direct, immediate and injurious im-

pact on petitioners, who were, as a result of these activities, unable to remain in the vanadium industry on a sound economic basis. (R. 970-972, 883-884, 891.)

In each of these actions respondents violated the will of Congress by using illegal means to cause injury and harm to petitioners. *United States v. Griffith*, 334 U.S. 100 (1948); *Fashion Originators' Guild v. Federal Trade Com'n.*, 312 U.S. 457 (1941); *Kiefer-Stewart Co. v. Joseph E. Seagram & Sons*, 340 U.S. 211 (1951); *Klor's Inc. v. Broadway-Hale Stores, Inc.*, 359 U.S. 207 (1949); *Standard Oil Co. v. United States*, 221 U.S. 1 (1911); *American Tobacco Co. v. United States*, 328 U.S. 781 (1946); *United States v. Sisal Sales Corporation*, 274 U.S. 268 (1927); *United States v. Socony-Vacuum Oil Co.*, 310 U.S. 150 (1940).

As a matter of Congressional mandate, the conspiracy involved herein and the practices undertaken pursuant to it are deemed injurious to competition. By judicial construction of Congressional purposes, the practices involved herein are pro tanto injurious to the market place, those competing in it and to these petitioners, one of those competitors.

B. The decision below is in direct conflict with Story Parchment Co. v. Paterson Parchment Paper Co., 282 U.S. 555 (1931); Bigelow v. RKO Radio Pictures, 327 U.S. 251 (1946); Eastman Kodak Co. v. Southern Photo Materials Co., 273 U.S. 359 (1927), All Landmark Decisions of This Court

1. The decision below is in direct conflict with Story Parchment Paper Co., 282 U.S. 555 (1931), which held that the proof of a conspiracy to monopolize contemplating the elimination of the plaintiff in an effort to maintain a monopoly control and the demise of the plaintiff-competitor presented sufficient evidence of causation to sustain a verdict for the plaintiff

Story Parchment Co. v. Paterson Parchment Paper Co., 282 U.S. 555 (1931), is all controlling here. In that case, this Court held that proof of conspiracy to eliminate a competitor by three companies holding monopoly power in an effort to maintain such monopoly control, and the in fact demise of the competitor presented sufficient evidence of causation to sustain a verdict. This is precisely the factual situation presented in the case at bar.

In *Story Parchment* the majority lower Court opinion reasoned that although there was proof of conspiracy to monopolize by fixing prices in order to eliminate a sole competitor, a fact assumed to be true in the opinion of the Court below in the case at bar, that the jury verdict in the trial Court should be reversed because: (a) loss of profits would be based on surmise and conjecture; and (b) the plaintiff did not have sufficient capital to meet the competition of defendants anyway. Therefore, the majority opinion concluded, the plaintiff had not proved causation. The majority opinion of the lower Court in *Story Parchment* stated in summary:

> "The plaintiff has not, therefore, sustained the burden of proving that it has suffered any measurable damage

from the reduced prices at which it was compelled to sell its product by reason of the alleged unlawful conspiracy of the defendants, or that the subsequent depreciation of its plant was due to any violation of Section 2 of the Sherman Anti-Trust Act (15 USCA §2) by the defendants." (37 F. 2d 541.)

In a dissenting opinion, Judge Anderson concluded that the damages suffered by plaintiff were not speculative and that the Court had improperly invaded the province of the jury in determining that the plaintiff would have died anyway. The dissenting opinion's statements are precisely applicable here. The Court stated (p. 542):

"... In a word, we have here, indisputably, a combination to kill a competitor followed by the speedy death of that competitor."

And at pages 543-544 of the dissenting opinion, Judge Anderson stated:

"The statements in the majority opinion that the plaintiff went out of business for lack of sufficient capital, 'and that its failure was inevitable, either from lack of capital or inefficient management or both,' amount to usurping the function of the jury. Indeed, the opinion on damages does not read at all like the opinion of an appellate court, dealing only with questions of law; it deals largely with facts solely for the jury.

"There is no discussion of the soundness of the trial court's instructions on damages. By necessary implication, they are conceded to be correct. The conclusion is (to repeat) that, without the defendants' conspiracy to put the plaintiff out of business, it would have died anyway. The logic is, in that regard, hardly

distinguishable from setting up the mortality of all human beings as a defense to an indictment for manslaughter or murder. The undeniable facts are that the defendants conspired to kill the plaintiff, and the plaintiff died. The majority opinion is to the effect that the conspiracy was unnecessary; that the plaintiff would have died anyway. I do not assent to such reasoning or its results."

This Court granted certiorari and rejected the majority opinion of the lower Court and adopted Judge Anderson's dissenting opinion. This Court held "That the petitioner was injured in its business and property as a result of this unlawful combination we think also finds sufficient support in the evidence." (282 U.S. 559.)

As to the conclusion of the lower Court in the *Story Parchment* case that the plaintiff could not prove that defendants caused the depreciation of his plant since it lacked sufficient capital anyway, this Court stated:

"Disposing of the second item of damages, the court below after referring to evidence tending to show that petitioner was not in a thriving financial condition, said that petitioner was without capital to meet the situation which it faced, even if there had been no conspiracy and there had been open competition; and that its failure was inevitable either from lack of capital or inefficient management or both. The court therefore concluded that petitioner had not sustained the burden of proving that the depreciation in value of its plant was due in any measurable degree to any violation of the Sherman Act by the respondents. But this conclusion rested upon inferences from facts within the exclusive province of the jury, and which could not be drawn by the court contrary to

> the verdict of the jury without usurping the functions of that fact finding body. Whether the unlawful acts of respondents or conditions apart from them constituted the proximate cause of the depreciation in value was a question, upon the evidence in this record, for the jury, 'to be determined as a fact, in view of the circumstances of fact attending it.' Milwaukee etc. Railway Co. v. Kellogg, 94 U.S. 469, 474, 24 L. Ed. 256. And the finding of the jury upon that question must be allowed to stand, unless all reasonable men, exercising an unprejudiced judgment, would draw an opposite conclusion from the facts." (282 U.S. 566-567.)

The *Story Parchment* factual situation is indistinguishable from the factual situation presented in the case at bar. In the *Story Parchment* case, as in the instant case, petitioner was the sole challenger to the monopolists. In the instant case, two monopolists conspired to maintain domination. In *Story Parchment* three monopolists conspired to maintain domination. In the instant case, the Court below conceded, for the purpose of its opinion, that respondents did in fact conspire to monopolize the industry. So did the Appellate Court in the *Story Parchment* case.

The *Story Parchment* decision by this Court stands for the proposition that appellate courts are in error when they fail to give effect to the intended effects of the conspiracy and the natural tendency which the acts committed pursuant to such illegal purpose have on competition.

We submit it is gross error under the *Story Parchment* case to refuse to allow the jury to determine whether or

not the acts of respondents, who had as their intention and purpose the elimination of all competitors, caused the elimination of petitioners.

Indeed, the legal presumption is that a conspiracy to eliminate competition continues until it succeeds. As stated by this Court in *United States v. Kissel*, 218 U.S. 601 (1910), at 607-608:

> ". . . A conspiracy to restrain or monopolize trade by improperly excluding a competitor from business contemplates that the conspirators will remain in business, and will continue their combined efforts to drive the competitor out until they succeed."

Under the holding of the *Story Parchment* case, the question of causation is a question of fact determinable by the trier of fact when a plaintiff proves a conspiracy to monopolize, a purpose and intention to eliminate him and his actual elimination from the industry after bona fide attempts to remain in the industry. In the case at bar, petitioners proved all these facts and more. In *Story Parchment* the defendants merely reduced prices; here there were affirmative, predatory acts of refusals to deal, of obstruction of sources of supply, of commercial interference with petitioner's manufacturing associates so as to disrupt petitioners' arrangements with these associates and thereby keep petitioners out of the industry, of a deliberate and successful elimination of petitioners from an existing and profitable export business.

See also *Richfield Oil Corporation v. Karseal Corporation* (9 Cir. 1959), 271 F.2d 709, 713; *Fox West Coast Theatres Corp. v. Paradise T. Bldg. Corp.* (9 Cir. 1958), 264 F.2d 602.

2. The decision below is in direct conflict with Bigelow v. RKO Radio Pictures, 327 U.S. 251 (1946), which held that a wrongdoer may not object to a plaintiff's estimate of the cause of injury and its extent because it was not based on more accurate data when the wrongdoer's misconduct has rendered this information unavailable

In *Bigelow v. RKO Radio Pictures, Inc.*, 327 U.S. 251 (1946), this Court held that when there is proof of wrongful acts, their tendency to injure plaintiff's business and evidence of a decline in prices, profits or values not shown to be attributable to other causes, the jury alone is authorized to assess damages. In so holding, this Court made it abundantly clear that the wrongdoer could not object to a plaintiff's reasonable estimate of the cause of injury and its extent on the ground that it was not based on more accurate data.

In the *Bigelow* case, this Court held that a jury could conclude as a matter of just and reasonable inference from proof of defendant's wilful acts, their tendency to injure plaintiff's business and from evidence of a decline in prices, profits and values that defendant's wrongful acts had caused damage to plaintiff. This Court pointed out that the wrongdoer was in no position to complain of the award of extensive damages, since his own actions had prevented the fact finders from knowing what would have occurred but for the wrongdoing. We very respectfully submit that the *Bigelow* case was not based on whether or not there existed a loss inflicted by the defection of countless individual customers, as the lower Court claimed in the case at bar, but was a holding that the law asserts liability upon those who engage in activity in violation of Congressional mandates.

The holding in the *Bigelow* case that a jury may award damages based on relevant evidence after proof of lia-

bility was no different in principle than the law applicable to cases involving a marine collision in which the offending vessel has violated regulations prescribed by statute, confusion of goods cases, or trade mark or patent infringement cases where the wrongdoer is held to account for his profits. Once the wrong and harm are established by the doing of intentional acts and contact on the offended party, in all these cases, the *Bigelow* principles of causation and assessment of damages are applied.

Similarly, in this case there can be little question that the question of the cause of damage and its extent should have been a question for the jury under the *Bigelow* case. In *Bigelow* the "contact" was in terms of "natural tendency"; here they were direct and intentional.

The Court below relied on *Momand v. Universal Film Exchanges* (1 Cir. 1948), 172 F.2d 37, which affirmed 72 F.Supp. 469 (1947) and which was decided after this Court's opinion in *Bigelow*. However, the *Momand* case is really not a "causation" case. The *Momand* case involved the inability of a plaintiff, after a prior judgment, to separate damages from specific claims of a variety of restraints. (72 F.Supp. 478, 172 F.2d 37 at 43.) In that case, plaintiff had litigated the issues involved in twenty business practices in a prior suit. Only two were found to be illegal. In a subsequent case, the *Momand* Court held that the plaintiff could not "shotgun" the twenty practices in the subsequent action so as to claim damages from restraints that had already been held to be legal. Here there has been no finding that respondents' activities are in any way legal, and in fact, the lower Court *assumed* that they were *not* and that respondents were engaged in

an overall conspiracy to eliminate competition. Even the *Momand* case conceded that in such a situation "the usual rule of tort" is that a plaintiff may recover for loss to which defendant's wrongful conduct substantially contributed. In other words, even the *Momand* case did not feel that plaintiff had to assume any burden to show that defendant's activity was the sole cause. However, the Court below, in the case at bar, used the *Momand* case as authority that petitioners did not prove a cause of action because they did not prove that no alternative arrangements were possible. It then went a step further and held that the Court *as a matter of law* was to determine whether petitioners had failed to find alternative sources, which, under any theory, is purely a question of fact. Whether petitioners were injured by respondents' violations committed pursuant to a conspiracy to monopolize or by other causes which respondents alleged was strictly a question of fact for the jury.

It is respectfully urged that proof of "cause" is established upon the proof that respondents' unlawful activities had contact and impact on petitioners. If it is respondents' contention that "other factors" caused petitioners' injury, it is a question of fact for the jury to decide whether it was these "other factors" or respondents' antitrust violations that caused petitioners to be excluded.

Even ordinary negligence law does not aid respondents. Justice Cardozo made it clear in *Palsgraf v. Long Island Ry. Co.*, 248 N.Y. 339, 162 N.E. 99 (1928), that once the plaintiff is found to be in the area of foreseeable harm, any damages which occur to him as a result of defendants' negligence are compensable. The Court stated:

". . . We may assume, without deciding that negligence, not at large or in the abstract, but in relation to the plaintiff, would entail liability for any and all consequences however novel or extraordinary."

However we are not here concerned with a negligence case. In the instant case petitioners were the intended victim of *intentional* acts, of an intentional and a deliberate exclusionary conspiracy which accomplished the very results which the respondents intended and which Mr. Burwell stated was the "only reason" that respondents would not sell oxide to petitioners. (R. 547.)

Furthermore, even under the law of negligence, the question of causation is a question of fact for the trier of fact to determine.

As stated in Harper and James, *The Law of Torts*, Vol. 2, pp. 1118-1119:

"A distinction should be emphasized at this point. We are concerned here with the *sufficiency, not the weight* of the evidence, and on familiar principles plaintiff is entitled to have sufficiency tested on the basis of the evidence most favorable to him. It is only to that version of the evidence therefore that the equal probability test (of the legitimacy of an inference) may properly be applied. It is the jury's function, not the court's, to say whether plaintiff's version of the case is sustained by the greater weight of the evidence. A case therefore in which the evidence most favorable to plaintiff (including the opinion of qualified experts) affords the basis for an inference of cause is not defeated as a matter of law by defendant's evidence of a different version of facts or a different theory of cause in fact. Where the evidence stands in that posture, the question of what

> probably happened in the case is for the jury even though the court might be inclined to accept the defendant's version."

See also Restatement Torts §§ 430-434.

We respectfully submit that this Court's opinion in the *Bigelow* case has decided, similarly, that antitrust actions are to go to the jury on causal issues when a conflict is presented and that damages are to be awarded where a wrong has been done.

"Legal Cause" is a legal doctrine which lends itself to the most extreme form of judicial speculation so as to deprive a litigant of his right to have all factual issues determined by the trier of fact. The learned Court below cited Comment, 61 Yale L. J. 1010. But this Comment pointed out at 1019:

> "Since 'legal injury' criteria are court applied, they provide convenient means to circumvent the *Bigelow* rule requiring submission of the causal issues to the jury whenever there is a reasonable inference that the violation caused injury."

There is really no judicial problem of "cause" here. Respondents violated the antitrust laws. They intended to harm and exclude petitioners. Respondents' officers testified they intended to harm petitioners. Petitioners were in fact subjected to various forms of impact and harm and were excluded from the vanadium business. The decline of profits and values, resulting in the complete exclusion of petitioners from the vanadium industry, under the accepted damage principles as spelled out by this Court in the *Bigelow* case, entitles them to damages.

B

QUESTION 2

PETITIONERS, AGAINST WHOM A DIRECTED VERDICT WAS ORDERED BY THE APPELLATE COURT AS A MATTER OF LAW, WERE DEPRIVED OF A JURY TRIAL BY THE APPELLATE COURT BELOW WHICH, IN DIRECTING A VERDICT, WEIGHED THE EVIDENCE, MADE FACTUAL RULINGS ON THE SUFFICIENCY OF THE EVIDENCE OF CAUSATION, DID NOT VIEW THE EVIDENCE AS A WHOLE, DID NOT ALLOW PETITIONERS THE BENEFIT OF THEIR EVIDENCE, DID NOT ALLOW PETITIONERS THE BENEFIT OF ALL INFERENCES AND PRESUMPTIONS THAT COULD BE DRAWN FROM THE EVIDENCE AND DID NOT RESOLVE ALL CONFLICTS IN THE EVIDENCE IN FAVOR OF PETITIONERS, ALL IN DIRECT CONFLICT WITH RULES GOVERNING JUDICIAL REVIEW AND THE DECISIONS OF THIS COURT

A. Petitioners were entitled to a just and reasonable interpretation of the record

Not only does *Story Parchment Co. v. Paterson Parchment Paper Co., supra,* hold that causation in a Section 2 case of the type involved here and under the facts present in this case is a question of fact for the jury, but it also establishes without any doubt that the Court below made factual evaluations reserved only for the jury. Under *Story Parchment* the conclusion is inevitable that in the case at bar there was a conflict in the evidence on the issue of causation and that the petitioners were entitled to have this issue determined by the jury. The Court below actually weighed the evidence and made factual determinations on conflicts in the evidence. And in reaching these conclusions, it failed to resolve the factual conflicts in favor of petitioners, as it was required to do. This it did on a cold record. The trial Court which heard the evidence first hand from the witnesses' lips was of

the opinion sufficient evidence was present to submit the case to the jury and the case was submitted to the jury. There was such a grave departure from the rules of judicial or appellate review by the Court below in directing a verdict that petitioners were deprived of their constitutional right to a trial by jury. *Beacon Theatres, Inc. v. Westover*, 359 U.S. 500 (1959); *Tennant v. Peoria & P. U. Ry. Co.*, 321 U.S. 29 (1944); *Lavender v. Kurn*, 327 U.S. 645 (1946); *Ellis v. Union Pac. R. Co.*, 329 U.S. 649 (1947); *Stone v. New York C. & St. L. R. Co.*, 344 U.S. 407 (1953); *Rogers v. Missouri Pacific Railroad Co.*, 352 U.S. 500 (1957); *Sentilles v. Inter-Caribbean Shipping Corp.*, 361 U.S. 107 (1959).

B. Only the trier of fact, the jury in this case, can draw inferences, determine the weight of the evidence, resolve conflicts in the evidence, determine the credibility of the witnesses. The Court below erred in not applying these traditional rules and in making these determinations itself as a matter of law

Respondents were entitled to a directed verdict only if on the evidence and the presumptions and the inferences that could reasonably be drawn from these facts, *considered in the light most favorable to petitioners*, reasonable men could not possibly have come to a contrary conclusion. Moore's Federal Practice, 2nd Ed., Rule 50, p. 2314, citing *North Pennsylvania R. Co. v. Commercial Nat. Bank*, 123 U.S. 727 (1887); *Delaware, L. & W. R. Co. v. Converse*, 139 U.S. 469 (1891); *Gunning v. Cooley*, 281 U.S. 90 (1930).

In *Gunning v. Cooley, supra*, at page 94, this Court stated:

> "Issues that depend on the credibility of witnesses, and the effect or weight of evidence, are to be decided by the jury. And in determining a motion of either party for a peremptory instruction, the court assumes that the evidence for the opposing party proves all that it reasonably may be found sufficient to establish, and that from such facts there should be drawn in favor of the latter all the inferences that fairly are deducible from them."

Appellate Courts are not to search the record to take cases away from the jury. *Tennant v. Peoria & P. U. Ry. Co.*, 321 U.S. 29 (1943); *Ellis v. Union Pacific Ry. Co.*, 329 U.S. 649 (1947); *Lavender v. Kurn*, 327 U.S. 645 (1946); *Story Parchment Co. v. Paterson Parchment Paper Co.*, 282 U.S. 555 (1931).

The limitations on the judiciary in granting directed verdicts or nonsuits preserves the Constitutional right to trial by jury. *Jacob v. City of New York*, 315 U.S. 752 (1942); *Stone v. New York, C. & St. L. R. Co.*, 344 U.S. 407 (1953); *Rogers v. Missouri Pacific Railroad Co.*, 352 U.S. 500 (1957); *Beacon Theatres, Inc. v. Westover*, 359 U.S. 500 (1959).

In the case of *Tennant v. Peoria & P. U. Ry. Co.*, 321 U.S. 29 (1943), Mr. Justice Murphy stated the present rule of this Court as follows:

> "It is not the function of a Court to search the record for conflicting circumstantial evidence in order to take the case away from the jury on a theory that the proof gives equal support to inconsistent and uncertain inferences. The focal point of judicial review is the reasonableness of the particular inference or conclusion drawn by the jury; it is the jury, not the

> Court, which is the fact-finding body. It weighs the contradictory evidence and inferences, judges the credibility of witnesses, receives expert instructions, and draws the ultimate conclusion as to the facts. The very essence of its function is to select from among conflicting inferences and conclusions, that which it considers most reasonable [citing cases] . . ."

The very essence of the jury is to select from conflicting inferences and conclusions that which it considers most reasonable. This right, whether it relates to negligence, causation or any other factual issue cannot be ignored. *Tennant v. Peoria & P. U. Ry. Co., supra*, at 321 U.S. 35; *Sentilles v. Inter-Caribbean Shipping Corp.*, 361 U.S. 107 (1959).

And in reaching these conclusions, the trier of fact looks at the evidence as a whole. As stated by the Sixth Circuit Court in *American Tobacco Co. v. United States* (6 Cir. 1944), 147 F.2d 93 at page 106:

> "At the outset, it may be remarked that the character and effect of a conspiracy are not to be judged by dismembering it and viewing its separate parts, but only by looking at it as a whole. *United States v. Patten*, 226 U.S. 525, 544, 33 S.Ct. 141, 57 L. Ed. 333; and in a case like the one before us, the duty of the jury was to look at the whole picture and not merely at the individual figures in it. *United States v. Pullman Co.*, D.C., 50 F.Supp. 123".

In *Stone v. New York, Chicago & St. Louis R. Co.*, 344 U.S. 407 (1953), this Court stated:

> "The fact that fair-minded men might likewise reach different conclusions on this branch of the case emphasizes the appropriateness of also leaving it to the jury."

C. The Court below failed to give judicial meaning and content to the violations of law committed by respondents and the natural tendency of these acts to injure. Instead the Court drew inferences against the petitioners so as to exact legal duties from them which are unwarranted in the law

The complaint filed herein and the trial made it abundantly clear that petitioners were complaining of a Section 2 conspiracy to monopolize case. Petitioners were not relying on a simple refusal to deal Section 1 case. They proved, *inter alia*, a combination to acquire control of vanadium oxide and ferrovanadium, to exclude competitors, to fix prices, to interfere with petitioners' suppliers and manufacturing associates, to use monopoly power to threaten reprisals against those competing with respondents, to cause exclusion of petitioners' exports to the Canadian market and to boycott petitioners.

In spite of this, the Court below ruled that it was incumbent on the petitioners to show that they requested vanadium oxide when they lost their manufacturing associates and that, when they did request supplies from respondents and were jointly refused, that they *sought* and exhausted every conceivable alternative source of supply.

But these requirements have no place in this action and they can only be imposed by the judiciary's failure to give full meaning to violations of the antitrust laws. Compare *W. W. Montague & Co. v. Lowry*, 193 U.S. 38, 47 (1904); *American Federation of Tobacco Growers v. Neal* (4th Cir. 1950), 183 F.2d 869; *Gamco, Inc. v. Providence Fruit & Produce Bldg.* (1 Cir. 1952), 194 F.2d 484.

Under the evidence in this case, petitioners were not required to make demands for vanadium oxide from

respondents, but could establish liability just by showing the deliberate destruction of their existing vanadium oxide suppliers, Loma Mill, Blanding Mines, Gateway or Nisley & Wilson, and North Continent Mines. Pursuant to respondents' conspiracy, as outlined in petitioners' statement of facts in this brief, bold and successful predatory means were taken by respondents to interfere with each of these suppliers so as to deprive petitioners of a steady and dependable source of oxide.

And even assuming this was not sufficient, petitioners could have rested on respondents' direct interference with petitioners in their dealings with Apex, Climax and Imperial.

In each instance the record herein showed shattering injurious impact. Apex was not obtaining sufficient quantities of oxide to run its mill at half capacity. (D's. V's. Ex. V-1-A; R. 2512A, 1142.) And just before termination of its relationship with petitioners, Apex was unable to obtain oxide supplies after repeated requests. (Pl. Ex. 144; R. 2266, 1313; Pl. Ex. 146; 2271-2275, R. 1320.) Apex capitulated just shortly after Blanding Mines informed it that Blanding could no longer furnish it with a supply of oxide which was necessary for production of vanadium for petitioners. (Pl. Ex. 131; R. 2239, 1242.) Respondents' exclusionary conspiracy left petitioners in June, 1942, without Apex Smelting and facing hostile monopoly powers. By June, 1942, only North Continent remained as a limited source of supply, a source which was hardly able to support the kind of manufacturing engaged in by respondents or attractive to others.

Further, it is elementary that the law does not demand a useless act and, accordingly, it certainly cannot establish a request to deal as a condition precedent to liability when the evidence shows conclusively that respondents consistently refused to supply petitioners, that such requests would have been futile and that a reasonable and prudent man would have known that it was useless to have sought the request from respondents after a series of *prior refusals*. "The law neither does nor requires idle acts."

But even assuming that requests for supplies were necessary, a just and reasonable interpretation of the record giving to the evidence all the necessary intendments, inferences and presumptions to which petitioners are entitled shows that requests were made at critical times in petitioners' relationships with their manufacturing associates when obtaining such supplies was urgent. (See R. 955-956; 1018; 1012-1013; 1302-1305.)

The Court below found that at the times petitioners claimed they were unable to obtain vanadium supplies from respondents, there was evidence that other sources were available to them. The Court was particularly concerned with the failure to buy certain Nisley & Wilson vanadium oxide in June of 1943, October, 1943 and January, 1944. However, the evidence proved that during 1943 Nisley & Wilson were under the control of USV, as agent for MRC. This agency relationship was used by respondents to channel Nisley & Wilson and their production into the hands of USV completely contrary to Mr. Nisley's desire. (R. 660.) In fact, this made it neces-

sary for petitioners to deal not with Nisley & Wilson, but with USV or MRC.

The supplies referred to in January, 1944, did not relate to oxide at all, but were raw ore. Mr. Nisley envisioned a plan for the conversion of the ore owned by MRC into oxide by Nisley & Wilson. However, Nisley & Wilson would have had to obtain the ore from MRC first, and USV was the agent for MRC.

Furthermore, the lower Court's demand that petitioners do business with Nisley & Wilson, in 1943 and 1944, in view of the evidence that the petitioners had done business with them in 1942, but that this business was deliberately thwarted by respondents is uncomprehensible and clearly places antitrust responsibility on the wrong foot. The respondents closed Nisley & Wilson in October, 1942, following the diversion of their ore supplies. (R. 658.) It was for the jury to determine what would have occurred but for the thwarting of the Nisley & Wilson Mill in 1942 and what impact this had on petitioners. The Court below has completely reversed the natural effect of violations of the antitrust laws into a condition precedent barring recovery from the wrongdoer. Petitioners were only required to show that a free and competitive market was converted into a monopoly market and that their substantial suppliers were thwarted or denied, *at opportune times*, so as to deny them steady, dependable sources of supply. (*Klor's, Inc. v. Broadway-Hale Stores, Inc.*, 359 U.S. 207 (1959).)

It is one thing to demand that petitioners utilize oxide supplies from Nisley & Wilson in 1941 at a time when they were operating with Apex Smelting under an agree-

ment and could have used the oxide, but it is quite another thing to demand that petitioners make demands of Nisley & Wilson in 1943 after VCA had interfered with Apex so as to cause petitioners' manufacturing associate Apex to leave the vanadium business and cease to associate with petitioners. It is one thing for the Court to ask that petitioners succeed with a firm as important as Imperial Paper and Color in 1940 when conditions looked favorable and markets were available to petitioners. But it is quite another thing to ask that petitioners succeed with Imperial on the same basis in 1944, 1945, and 1946 when the respondents had deliberately destroyed the market, had deliberately destroyed all the independent vanadium oxide mills, had deliberately acquired the existing government plant "to keep control of the production of vanadium" (R. 246-247) and had made it clear that such acquisitions were notice to all of continuing monopolization. A conspirator cannot, under the antitrust laws, drive a competitor out of business, and after he has driven him out of business offer him lagniappe by making available to him supplies which are by this time useless to him as a result of the conspirator's wrongdoings. The failure of the Imperial venture proved the complete success of years of monopolization. The domestic sources of oxide supply denied to Imperial were denied by acts of the respondents, not by acts of the petitioners.

Not only did the Court below fail to give the petitioners the presumptions and inferences which were their due under the Sherman Act and rules of judicial review, but the Court below established rules which find no place in the judicial enforcement of antitrust liability.

D. Even assuming the correctness of the legal conclusions of the Court below, the opinion of the Court below conflicts with a just and reasonable interpretation of the record, for the evidence shows that by giving petitioners the benefit of all the inferences and presumptions to which the evidence entitled them and by resolving the factual conflicts in their favor, as required by the rules of judicial review, petitioners proved the very matters which the lower Court stated were not proved and upon which, so the lower Court stated, it was required to hold that there was no causal relationship as a matter of law between respondents' antitrust violations and petitioners' injury

But even assuming that the Court below was correct in establishing that, as a condition precedent to petitioners' recovery, they were required to make a constant demand for vanadium oxide and to exhaust every conceivable alternative source of supply, however chronologically remote those offers and sources were to the acts of impact and harm, petitioners in fact proved that they did make requests for oxide from respondents throughout the conspiracy's continuation and that they reasonably offered to do business with alternate sources. Petitioners further proved that respondents' refusals to deal occurred at strategic times when petitioners were attempting association with manufacturing concerns, needed the supplies to remain in the vanadium industry and that respondents' refusals to deal were the substantial factor in petitioners' failure to achieve successful entry into the vanadium business.

At the very least, under the applicable rules of judicial review, a factual conflict was presented on the issue of causation which was for the jury to determine.

1. Apex

As to the Apex contract, the Court below stated in its opinion:

> "We hold, under the cases cited pages 8-9, *supra*, that the failure of Apex or of Continental to try to buy oxide from the defendants during the final and most critical period in the life of the Apex contract made it impossible for the jury to find that defendants' refusals to deal caused Apex to terminate the arrangement with Brignoud. In regard to the Apex venture, the judgment below is affirmed." (R. 2576.)

In its opinion, the Court below stated that petitioners failed to make requests for supplies for a year prior to the time that lack of supplies caused Apex to end its relationship with petitioners and that this failure to make requests for supplies during the "final and most critical period of the Apex contract" made it impossible for the jury to find that respondents' refusal to deal caused Apex to terminate its business arrangement with petitioners.

But to the contrary, the evidence showed that Apex or petitioners did try to obtain supplies and that they tried to obtain them during the period of time that the Court below took it upon itself to establish as the "critical" period.

On or about January 27, 1942, petitioners were notified by Apex that it was discontinuing its relationship with them. (Df. V's Ex. 1-Y, R. 2519, 1173.) Production continued until June, 1942, by special agreement between petitioners and Apex because Apex was advised that petitioners had a binding agreement with Apex and petitioners were objecting strenuously to this breach of con-

tract by Apex. (Pl. Ex. 62, 168, 671; 675, 1334, 1945.) To stay in the vanadium business as long as they could by any means, petitioners got Apex to agree that Apex would at least for several months convert all the quantities of vanadic acid petitioners could obtain for Apex from Blanding, Nisley & Wilson and Shattuck. (Pl. Ex. 122, R. 2215, 1096.) Thus, the "critical" year would be from January, 1941, to January 27, 1942. It is uncontradicted that during this "critical" period, petitioners took various actions to obtain the supplies needed by them to allow them and Apex to remain in the vanadium business. See Table appearing at page 59 of this Brief for the numerous requests made by petitioners.

On July 7, 1941, petitioners requested that the Office of Production Management intervene in their behalf to secure supplies of oxide for them. (Pl. Ex. 132, R. 2265, 1245.) Union Carbide and VCA *both* declined to supply petitioners. (Pl. Ex. 132, R. 2265, 1245.)

Thus, petitioners first had asked for the oxide itself (Pl. Ex. 77, R. 176, 761), then that they at least be allowed to process the oxide for respondents (Pl. Ex. 77, R. 176, 761), and finally that the government intervene to acquire supplies for them, so serious did they consider the supply situation to be and so intent were they on remaining in the vanadium business. Yet, in every instance, petitioners were refused supplies.

From October to December, 1941, petitioners frantically attempted to obtain oxide. Having been turned down by respondents, petitioners centered their attention on obtaining acid from the Defense Plant Corporation Monticello Plant, which was under the administration of VCA. (Pl.

Ex. 144, R. 2266-2270, 1313; Pl. Ex. 146, R. 2270-2275, 1320.) On December 3, 1941, Apex requested the Defense Plant Corporation to sell them vanadium oxide from the Monticello Plant which was to be erected. (Id., R. 2266.) This request was suggested to Apex by Mr. Leir after petitioners learned that VCA was to construct the plant. (R. 2267.) Again on December 26, 1941, Apex wrote the Vanadium Division, Office of Production Management, seeking a source of oxide supply. (Pl. Ex. 146, R. 2270-2275, 1320.) These requests were made by Apex at the urging and insistence of Mr. Leir. (Pl. Ex. 146, R. 2270-2275, 1320.)

That Mr. Leir felt it was the better exercise of business judgment to attempt to get government aid in obtaining supplies which were denied him directly by respondents is obvious. He wrote:

> " . . . as far as we can see, the production of Ferro Vanadium has been mainly localized to two very big outfits in this country, and we think we are not asking too much if we apply to you for a better distribution of the available Vanadium Oxide, all the more as the Government is spending a lot of money for new production facilities and road construction out West." (Pl. Ex. 146, R. 2270-2275, 1320, at R. 2275.)

Thus, the evidence showed a request for supplies in June 14, 1941 (Pl. Ex. 77, R. 176, 761) and the desperate offer to mill ferrovanadium from oxide supplied by respondents. (Pl. Ex. 77, R. 176-177, 761; Pl. Ex. 132, R. 2261-2263, 1245.) The evidence showed that petitioners even requested the OPM to intervene for them and attempt to obtain vanadium supplies from respondents. (Pl. Ex. 132, R. 2265, 1245.)

It is also material to note that Apex demanded vanadium oxide supplies from the government and that just *one month* before Apex notified petitioners that they could no longer continue in the vanadium business Apex complained to the government of inadequate supplies. (Pl. Ex. 144, R. 2266-2270, 1313; Pl. Ex. 146, R. 2270-2275, 1320.) And, as previously noted in this Brief, on September 17, 1941, just *three months* before Apex notified petitioners that they could no longer stay in the vanadium business, Apex had complained to petitioners that they were not getting a sufficient quantity of oxide to run their production on half time. (Df. V's Ex. V-1-Q, R. 2512A, 1145.)

Also, in its opinion, the Court below stated that petitioners had obtained 16,000 pounds of vanadium oxide from Electromet Sales in July and August, 1939. (R. 2575.) However, the evidence did not show this at all. To the contrary, the evidence showed that petitioners could not get this oxide directly from respondents, but that they had to purchase it surreptitiously through an intermediary, a Mr. Poliakoff. (R. 1228, Df. U's Ex. U-5-L, R. 558-590, 1229.) Mr. Leir testified that Mr. Poliakoff "got the material which I could not get directly." (R. 1228.)

So, contrary to what the opinion of the lower Court stated the facts to be, the evidence showed a steady and determined joint refusal by respondents to sell to petitioners and to prevent petitioners from getting supplies from any source.

By February 16, 1942, petitioners had received assurances of governmental cooperation in obtaining additional

supplies of vanadic acid. (Df. V's Ex. 2-A, R. 603, 1176.) However, four days after this letter was written, VCA held the meeting with Apex which finally resulted in direct commercial arrangements between Apex and VCA for the purchase of aluminum ingots by VCA, which, in the circumstances and the evidence of this case, certainly permitted the inference to be drawn that the consideration for these arrangements was the discontinuation of the contract petitioners had with Apex. (Pl. Ex. 62, 168, 671; R. 672-676, 1335-1336, 1947-1949, 2144-2146.)

Therefore, the record shows numerous requests by petitioners to buy from respondents during the "critical" period before the notice of cancellation was sent by Apex to petitioners, deliberate refusals to deal with petitioners by respondents and bona fide attempts by petitioners to obtain oxide from other sources.

2. Climax

As to the *Climax* arrangement and petitioners' inability to manufacture ferrovanadium in 1943, the Court below stated:

> "Thus even if Continental and Climax were threatened with reprisals, the evidence does not reveal the result of such threats. On the basis of the evidence in the case, the threat of reprisal appears to be one directed against a corporation with which Continental had no business, since the nature and existence of the alleged "pending negotiations" are not shown by the record. Appellants have thus failed to show any injury resulting from the alleged threats. There must be an injury, together with a wrong and a causal connection between the two, before liability can result." (R. 2581.)

But such a conclusion can be drawn only by ignoring completely the direct testimony of Mr. Wolf, petitioners' Vice-President. Mr. Wolf specifically testified that petitioners lost Climax as an associate because of respondents' interference with Climax. (R. 978.) He also testified that respondents prevented the *continuance* of petitioners' existing relationship with Climax by their interference and threats of reprisals. He stated:

> "We had at that time lost as partners in this field Apex Smelting, who had previously manufactured ferrovanadium in conjunction with us as our partners. We had likewise lost Climax Corporation, who had done the same thing to us, and did not *continue* because of interference by the defendants with Climax." (R. 978, emphasis added.)

Mr. Wolf's testimony was substantiated by other evidence. For example, on May 21, 1943, petitioners requested that Electromet fill Continental's oxide requirements for *the remainder of the year.* (Df. V's Ex. U-4-M, R. 580-581, 955; R. 1018.) On that date, Mr. Wolf wrote to Electromet Sales:

> ". . . We are perfectly willing to sign a contract with you for our requirements until the end of the year. At present these requirements are estimated to amount to about 10,000 lbs. of V contained in pentoxide *per month.*" (Emphasis added.) (Df's Ex. U-4-M, R. 580, 955.)

Mr. Wolf testified that this request, made in the latter part of May, 1943, was specifically for a *continued* arrangement with Climax. He testified:

> "Q. Do you recall for which of these contracts you made that demand for the requirement contract?

A. Which of these——

Q. For which of either the Imperial or the Climax contract?

A. That was in June? No.

Q. June of '43?

A. *June of '43? That would have been probably for Climax, I would say.*

Q. Now then, you never did get the requirement contract?

A. No.

Q. In 1943, did you?

A. No." (R. 1018, emphasis added.)

Respondents rejected this request and denied petitioners any supply.

In other words, petitioners were requesting oxide for their Climax contract as late as June, 1943. But petitioners were unable to arrange for the manufacture of ferrovanadium with Climax or any other concern in 1943, 1944, 1945 and thereafter. As to Climax, it is undeniable that the offer of proof by petitioners was that Union Carbide told petitioners to stay away from Climax and that respondents threatened Climax with reprisals in order to disrupt petitioners' association with them and thereby prevent petitioners from remaining in the vanadium business. (R. 827-830.) Petitioners specifically testified that they lost Climax because of the interference by respondents with Climax. (R. 978.) Mr. Wolf testified that the request for oxide from Union Carbide in May, 1943, was to supply Climax with vanadium oxide. (Df. U's Ex. U-4-M, R. 580-581, 955; R. 1018.)

Thus, the lower Court's statement that the "earlier transaction stands alone in the record as the only con-

nection between Climax and Continental" is in error, as is its conclusion that the threat of reprisal was made to a corporation with which Continental had no business.

It is anomalous for the lower Court to say that petitioners had no "pending arrangements" with Climax when the "pending arrangements" were specifically disrupted by respondents' interference pursuant to their conspiracy to monopolize the industry and to discourage any competitor or any associate who entered any arrangement with the competitor

3. Imperial

As to the *Imperial* relationship and its failure the Court below stated:

> "Yet from the end of 1943 until 1946, when Electro Metallurgical Sales Corporation gave Continental a requirements contract for vanadium oxide, appellants made no move to obtain the allegedly necessary steady and uniform source of supply from any of the defendants. This is much like the Apex situation except that here there were no offers to buy during the entire life of Continental's arrangement with Imperial. Surely Continental cannot complain that the defendants did it wrong when it cannot show that it sought to alleviate its situation by seeking supplies from the defendants at any time during the life of the Imperial venture." (R. 2582-2587.)

But the evidence was to the contrary. The requests for supplies made by petitioners in November, 1943, only a month and a half before the signing of the Imperial contract, were for the *specific purpose* of supplying Imperial with vanadic acid for its manufacturing arrangement with

petitioners and for the proposed manufacture of ferrovanadium by Imperial. (R. 1012-1013.) At that time, petitioners "were trying to get a basis of raw materials for our negotiations for the forthcoming [Imperial] contract." (Id.) However, respondents uniformly refused to deal. (Pl. Ex. 40, R. 153, 269; Pl. Ex. 41, R. 154, 269; Pl. Ex. 42, R. 155-157, 270.)

4. Van-Ex Period and Nisley & Wilson

As to the Van-Ex situation and the alleged refusal of petitioners to acquire the Nisley & Wilson production, the Court stated:

> "We think this failure to deal with Nisley & Wilson during the Van-Ex period precludes Continental from arguing that defendants prevented the acquisition of raw materials at that time. As to Apex, appellants failed to show their inability to get oxide from defendants. With regard to Van-Ex they failed to show that it was impossible for them to obtain supplies from an independent producer." (R. 2579.)

But the evidence showed that Continental could not deal with Nisley & Wilson during this time. The evidence showed that respondents' conspiracy to monopolize shut down the Nisley & Wilson mill from October, 1942, to April, 1943. (R. 662-663.) Mr. Nisley himself testified that respondents caused him to cancel his relations with petitioners. (R. 658.) And when the mill was reopened in April, 1943, Nisley & Wilson were under the control of USV as agent for MRC. (Pl. Ex. 74, R. 2162-2168, 677.)

In March, 1943, MRC had turned down petitioners' request for oxide. (Df. U's Ex. U-4-C, R. 567, 940 and see R. 939.) In June, 1943 the petitioners on one occa-

sion turned down an MRC offer to supply petitioners with Nisley & Wilson production. (Df. Ex. U-3-Y, R. 928-929.) Mr. Wolf testified that he did not recall ever being offered the Nisley & Wilson production by MRC. (R. 926-927.) The oxide was refused in June, 1943 because petitioners were unable to use oxide that was not flaked. (R. 933.)

In October, 1943, Nisley & Wilson could not possibly have been offering vanadium oxide to petitioners because their production was completely under the control of USV, agent for MRC. (Df. U's Ex. U-5-J, R. 2471, 1208.) Nisley & Wilson and petitioners were merely exchanging ideas for future production plans when USV would not be controlling their production.

The opinion of the Court below is also in error in stating that Nisley & Wilson had on hand a stockpile of approximately 300,000 pounds of oxide which they tried to sell to petitioners in the Spring of 1944 and which petitioners refused to buy.

The evidence showed that Nisley & Wilson had closed their mill in January, 1944, as a direct result of respondents' activities. (R. 667-668.) Therefore, Mr. Nisley was not offering petitioners the production of his mill, which was not then even in operation. Mr. Nisley was merely suggesting that he process a stockpile of raw ore located at Gateway which did not belong to Nisley & Wilson but to MRC. (R. 732-734.) Nisley & Wilson's actual ability to obtain the stockpile was conjectural. However, in spite of this, the evidence showed that Mr. Leir stated that he would "give [Nisley] all possible cooperation". (Df. Ex. U-2-W, R. 733, 733.) The evidence was that Mr. Nisley was forced to terminate his production although he knew

that petitioners would buy all the material he could produce. (R. 667.)[30]

5. Petitioners' Canadian Business

As to the exclusion of petitioners from the Canadian market, the Court below had to concede that the evidence offered under petitioners' offer of proof was sufficient to sustain a finding that petitioners were damaged as a result of respondents' conspiracy. There was no question as to the causal relationship in this regard. However, the Court below side-stepped this injury to petitioners by holding that respondents' conduct with reference to the Canadian situation did not violate the antitrust laws under the authority of *Eastern Railroad Pres. Conf. v. Noerr Motor Frgt., Inc.*, 365 U.S. 127 (1961), which we submit is not controlling. We shall discuss this question in the next Section of our Brief.

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[30]As has been indicated previously, Mr. Nisley filed an action in the United States District Court for District of Utah, Central Division, alleging that he and his mill were eliminated from the vanadium business as the result of the conspiracy to monopolize which is the subject of this action. A jury returned a verdict in his favor and found that respondents had conspired to eliminate him. The judgment entered on this verdict was recently affirmed by the Tenth Circuit in *Union Carbide and Carbon Corp. v. Nisley* (10th Cir. 1961) 1962 Trade Cases, Par. 70,222, page 75,805.

C

QUESTION 3

THE ANTITRUST LAWS PROTECT A BUSINESS INJURED BY UNITED STATES CORPORATIONS EVEN THOUGH PART OF THE MEANS USED TO ACCOMPLISH THE INJURY INVOLVES THE USE OF A PRIVATE WHOLLY OWNED FOREIGN SUBSIDIARY WHICH WAS GIVEN A DISCRETIONARY POWER BY AN AGENCY OF A FOREIGN GOVERNMENT WHEN THE MATTERS RELATE TO ORDINARY COMMERCIAL ACTIVITY

A. United States corporations are liable for conspiring to eliminate the foreign trade of a domestic competitor regardless of the means used. The fact that they use a governmental agency to accomplish this result does not immunize them

1. The elimination of petitioners' Canadian business was part of respondents' conspiracy to eliminate Petitioners from the vanadium industry

At the outset, it must be pointed out that this is not an action against the Canadian government and is not an action against the Office of Metals Controller of Canada. (R. 804; Pl. Ex. 93 for Id.; R. 451, 821.) It is simply an action against Union Carbide (and its American affiliate Electromet) and VCA, all American companies, for conspiring to violate the antitrust laws in furtherance of their own private gain. Part of respondents' conspiracy was effectuated by unlawfully using the wholly owned Canadian subsidiary of Union Carbide, which had been given the power in Canada to allocate and control the importation of vanadium into Canada, to eliminate petitioners from the Canadian market by refusing to allow them to make shipments to their Canadian customers.

It is petitioners' position that:

(1) Respondents were not immune from antitrust violations. They can point to no evidence giving either of them immunity from the antitrust laws.

(2) The fact that Electromet of Canada may have had an agency contract with the Office of Metals Controller to purchase and allocate vanadium certainly does not immunize its parent, Union Carbide, from conspiring with VCA to unlawfully use the agency to further their unlawful conspiracy.

(3) Even assuming that Union Carbide's activities while acting through its Canadian subsidiary were both immune and lawful, which they were not, Union Carbide conspired with the other respondent VCA to use the Canadian subsidiary to further their unlawful conspiracy at the expense of petitioners and the immunity, if any existed, certainly did not extend to these acts and to VCA.

Respondents, of course, cannot point to any evidence giving Union Carbide or VCA immunity from the antitrust laws for any of their acts. There is no evidence of a certificate of immunity from the government nor any evidence that one was ever sought. See *United States v. Socony-Vacuum Oil Co.*, 310 U.S. 150 (1940); *United States v. Association of American Railroads* (1 D.C. Neb. 1954), 4 F.R.D. 510. The exclusion of petitioners from the Canadian market was part of an overall plan by respondents to conspire to monopolize the vanadium industry. Electromet of Canada, the wholly owned Canadian subsidiary of Union Carbide, was appointed by the Office of Metals Controller, an agency of the Canadian government, to act as its agent in purchasing vanadium for Canadian steel makers. Electromet of Canada was given authority to use its discretion in making purchases and was never authorized by the Canadian government,

or any of its agencies, to conspire with any other company to eliminate competition. It simply was to purchase and allocate. However, respondents, both American corporations, were engaged in a conspiracy to monopolize the vanadium industry, a part of which conspiracy was to eliminate petitioners. In furtherance of that basic conspiracy Electromet of Canada, wholly owned and completely dominated and controlled by Union Carbide, was ordered by its parent to allow into Canada only shipments of oxide from Union Carbide and VCA and to prevent and eliminate petitioners from selling their products to their Canadian customers, including Atlas Steel, Ltd. The power given to the Canadian subsidiary was used by respondents to further the basic conspiracy. Neither the Canadian government, nor its agency the Office of Metals Controller, is charged with any illegality in this case, and both were totally oblivious to the purpose for which the Canadian subsidiary refused to allocate to petitioners or their customers. (R. 831.) The elimination and the predatory tactics dictating the policy of the Canadian subsidiary which brought about the elimination of petitioners took place in the United States and was an arm of the American conspiracy.

2. Immunity from the antitrust laws will not be implied and even if granted it will be specifically limited to the exact conduct described

It has been long established that immunity from the antitrust laws will not be created by implication, but rather that there must be a specific grant of immunity. *United States v. Borden Co.* (1939), 308 U.S. 188; *Maryland & Virginia Milk Pro. Ass'n. v. United States* (1969), 362 U.S. 458; *United States v. Radio Corporation of*

America (1960), 358 U.S. 334. "We cannot believe that Congress intended to create so great a breach in historic remedies and sanctions." (*Ibid.*, 308 U.S. 188, 198.)

As stated in *United States v. Borden Co., supra*, "If Congress had desired to grant any further immunity, Congress doubtless would have said so." (p. 201.) And again in *United States v. Socony-Vacuum Oil Co.* (1940), 310 U.S. 150, "For Congress had specified the precise manner and method of securing immunity. None other would suffice." (310 U.S. 226-227.) Whenever Congress has desired to grant immunity, it has specifically stated so and has provided the machinery to invoke such immunity.[31]

Furthermore, when Congress has granted immunity, it has specifically limited the immunity to the *exact* conduct described and the Courts have so construed the grants of immunity. In *Atchison, Topeka & S. F. Ry. Co. v. Aircoach Transport. Ass'n.* (D.C. Cir. 1958), 253 F.2d 877, *cert. denied*, (1960) 80 S.Ct. 372, the Court held that even though the alleged conspirational agreements were within

[31]For example, see the following: Agricultural Adjustment Act of 1933, Sec. 8(2); 48 Stat. 34; as amended see 7 U.S.C. Sec. 608b; Agricultural Adjustment Act Amendment of 1935, Sec. 37; 49 Stat. 781; Capper-Volstead Act, Sec. 2; 42 Stat. 388; 7 U.S.C. Sec. 291; The Interstate Commerce Act, Sec. 5a; 62 Stat. 472; 49 U.S.C. Sec. 5b; Federal Aviation Act of 1958, Sec. 414; 72 Stat. 770; Communications Act of 1934, Section 313; 48 Stat. 1087; Webb Export Trade Associations Act, Section 2; 40 Stat. 517; Atomic Energy Act of 1954, Sec. 105; 68 Stat. 938, 42 U.S.C. Sec. 2135 (the Act of 1954 amends and supersedes that of 1946 which contained substantially similar provisions. Both Acts *specifically* provide for antitrust liability); Small Business Mobilization Act of June 11, 1942, Sec. 121; 56 Stat. 357; Small Business Act of 1958, Sec. 11; 72 Stat. 394; Defense Production Act of 1950, as amended, Sec. 708(b); 69 Stat. 581, 50 U.S.C. App. Sec. 2158.

the specific antitrust immunity section of the Interstate Commerce Act and although a certificate of immunity may have been obtained, these agreements nevertheless would be held to be violations of the antitrust laws if they were part of a plan or conspiracy to eliminate competition. Similarly, in *Maryland & Virginia Milk Pro. Ass'n. v. United States, supra*, the Court held that although section 6 of the Clayton Act exempted labor[32] and agricultural organizations from the antitrust laws, and although section 2 of the Capper-Volstead Act exempts agricultural associations from the antitrust laws, the full effect of these actions is that although a group of farmers acting together cannot be restrained:

> "'. . . from lawfully carrying out the *legitimate objects* thereof' (emphasis added), but the section cannot support the contention that it gives such an entity full freedom to engage in predatory trade practices at will. [cases cited]" (pp. 465-466):

And further (pp. 466-467):

> ". . . It does not suggest a congressional desire to vest cooperatives with unrestricted power to restrain trade or to achieve monopoly *by preying on independent producers, processors or dealers intent on carrying on their own business in their own legitimate way . . .*" (Emphasis added.)

So it is clear that Congress does not liberally grant antitrust exemptions and that even when immunity is

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[32]That section 6 does not manifest "a congressional purpose wholly to exempt" labor unions from the antitrust laws, see *Allen Bradley Co. v. Local Union No. 3* (1945), 325 U.S. 797, 805; *Duplex Printing Press Co. v. Deering* (1921), 254 U.S. 443, 468-469.

granted, the immunity will not extend to acts beyond the legitimate objects of the conduct immunized.

B. A private corporation is not immune from the antitrust laws because it has an agency agreement with a foreign governmental agency if it unlawfully uses its agency powers to violate the antitrust laws

Private corporations such as Union Carbide and VCA are not immune from the antitrust laws if they conspire to violate the antitrust laws, and if, as part of that conspiracy, they unlawfully use an agency agreement which one of their wholly owned and controlled subsidiaries has with an agency of the Canadian government to eliminate competitors from the Canadian market. Private corporations which undertake, through subsidiaries or otherwise, to assume certain functions as agencies of the government are themselves responsible for their own tortious conduct when that conduct conflicts with the antitrust laws.

The Sherman Act is violated if parties to a conspiracy use foreign laws, regulations or corporations to further an illegal conspiracy to restrain United States trade. It is fundamental that the antitrust laws encompass acts of a private corporation even though it has been incorporated by direction of a foreign government, used as a governmental agent, and is partly owned by the government. *United States v. Deutsches Kalisyndikat Gesellschaft* (S.D. N.Y. 1929), 31 F.2d 199. In this case, the Court held that where private commercial activities are involved, a private corporation is subject to the antitrust laws even though it was formed by direction of a foreign government and proceeds from its operation go into the

public treasury. The Court further held that an antitrust suit against such a private corporation is not a suit against the sovereign and that a private corporation in which a government has an interest is not a department of the government. As to the claim by the private corporation of sovereign immunity because of its agency relationship, the Court held (p. 202):

> "Nor can immunity be claimed by the defendant corporation, or on its behalf, or by or on behalf of any of its officers, agents, or employees, on the ground that they are acting as agents of a foreign government. *An agent does not cease to be answerable personally for his illegal acts because he is an agent, even though he may be an instrumentality of government.* Sloan Shipyards Corp. v. U.S. Shipping Board Emergency Fleet Corp., 258 U.S. 549, 567, 42 S. Ct. 386, 66 L. Ed. 762. Officers and agents of a corporation are not officers or agents of its stockholders (U.S. v. Strang, supra), and it therefore cannot be successfully urged that an action against an officer or agent of a corporation in which a sovereign state is a stockholder is in fact an action against the sovereign state." (Emphasis added.)

As was stated by this Court in *United States v. Sisal Sales Corporation*, 274 U.S. 268 (1927) (p. 276):

> "Here we have a contract, combination, and conspiracy entered into by parties within the United States and made effective by acts done therein. The fundamental object was control of both importation and sale of sisal and complete monopoly of both internal and external trade and commerce therein. The United States complain of a violation of their laws within their own territory by parties subject to their

jurisdiction, not merely of something done by another government at the instigation of private parties. True, the conspirators were aided by discriminating legislation, but by their own deliberate acts, here and elsewhere, they brought about forbidden results within the United States. They are within the jurisdiction of our courts and may be punished for offenses against our laws."

In *United States v. R. P. Oldham Company* (N.D. Cal. 1957), 152 F.Supp. 818, which involved an alleged conspiracy in the importation of Japanese nails, the Court stated (p. 821):

> "At the outset, it should be made clear that there is no attempt here to regulate Japanese commerce as such . . . Japanese firms and activities in Japan are considered only in so far as they relate to the precise charge, against American defendants, of a conspiracy in restraint of trade in the importation and sale of wire nails on the West Coast of the United States. Under the circumstances, it is absurd to say that principles of international law and comity of nations put the charges of this indictment within the exclusive jurisdiction of the Japanese Courts, or require that Japanese law be applied."

See also: *United States v. Aluminum Co. of America* (2 Cir. 1945), 148 F.2d 416; *United States v. American Tobacco Co.*, 221 U.S. 106 (1911); *In Re Grand Jury Investigation of the Shipping Industry* (D.C., 1960), 186 F.Supp. 298, 319; *Brady v. Roosevelt Steamship Co.*, 317 U.S. 575 (1943); *Keifer & Keifer v. Reconstruction Finance Corp.*, 306 U.S. 381 (1939).

C. Eastern Railroad Pres. Conf. v. Noerr Motor Frgt., Inc., 365 U.S. 127 (1961) does not apply to the exclusion of competition accomplished under and pursuant to the terms of a conspiracy to monopolize an industry by predatory business tactics, even though part of the conspiracy included the use of one of the co-conspirator's subsidiaries which had been given the power to allocate vanadium by an agency of the Canadian Government

The citation by the Court below to *Eastern Railroad Pres. Conf. v. Noerr Motor Frgt., Inc.*, 365 U.S. 127 (1961) to support the proposition that the Canadian situation involved in this case and described above does not violate the Sherman Act is erroneous.

The *Noerr* decision, it is respectfully submitted, is a narrow and specific holding that the Sherman Act does not control joint action to lobby or to influence the passage of legislation, although, even in this field, this Court concedes "There may be situations in which a publicity campaign, ostensibly directed toward influencing governmental action, is a mere sham to cover what is actually nothing more than an attempt to interfere directly with the business relationships of competitor and the application of the Sherman Act would be justified." (365 U.S. 144.) It is clear that the purpose and objective in the *Noerr* conspiracy was to associate and bring about forceful lobbying campaigns for the advantage of the lobbying group. The Canadian market arrangement in the instant case was a strict and classic market division agreement under which Union Carbide instructed its Canadian subsidiary to allocate vanadium imports only to Union Carbide and VCA, to eliminate petitioners from the Canadian field, to take away petitioners' Canadian customers, and to allo-

cate those customers between VCA and Union Carbide. (R. 828.) This traditional, predatory conduct has always been held to violate the Sherman Act in spite of claims of government approval.

In *Atchison, Topeka & S.F. Ry. Co. v. Aircoach Transport Ass'n, supra,* the complainant alleged defendants negotiated special rates with the military agencies of the government for the transportation of personnel by overall contracts in violation of the antitrust laws. Defendants claimed the rates fixed were fixed pursuant to the Interstate Commerce Act, that said Act specifically provided that such agreements were immune from the antitrust laws if approved by the I.C.C., and that such agreements were so approved and hence immune. The Court held that even though it should be found that the agreements were within the immunity section and an antitrust immunity certificate obtained, they nevertheless would be held as violations of the antitrust laws *if the agreements were part of a plan of the defendants in combining or conspiring to eliminate the competition of plaintiffs.* The Court held (p. 887):

> "*Even though it should be found in the end that the practices as such have been validly immunized by section 5a approved agreements, nevertheless, if they are part of an effort by Railroads in combination or conspiracy to eliminate the competition of Aircoach,* rather than used merely to meet that competition, *the practices would be removed from the protection of section 5a(9).* We do not think the Act or any agreement which has been approved under it can be construed as authorizing the use of such practices

for the purpose of eliminating the competition of Aircoach for the section 22 transportation involved. [Cases cited.]" (Emphasis added.)

In *State of Georgia v. Pennsylvania R. Co.*, 324 U.S. 439 (1945), defendants contended, in answer to a charge that they had fixed rates in violation of the antitrust laws, that the ICC had actually approved the rates under the ICC Act standards. This Court held that even though rates were cleared by the ICC, the antitrust laws were violated if the rates fixed, although reasonable and nondiscriminatory, were restrictive rather than competitive.

This same problem was presented in *United States v. Socony-Vacuum Oil Co.*, 310 U.S. 150 (1940). Among the numerous defendants indicted and found guilty of conspiring to fix the price of gasoline in violation of the antitrust laws was one C. E. Arnott, Vice-President of the defendant Socony-Vacuum. By Congressional authority and administrative appointment, Arnott was appointed chairman of the Planning and Coordination Committee's Marketing Committee, and requested to take action to restore markets to their normal condition. (p. 175.) Sections 3(a) and 5 of the NIRA Act permitted issuance of antitrust immunity certificates. It was admitted by defendants, including Arnott, that they did not obtain such certificates and hence were not immune from the antitrust laws. Defendants offered to prove governmental approval of Arnott's activities to show the purpose, effect, and reasonableness of the activities under the program. The Court rejected this and held that since immunity was *not* given, the defendants were responsible

even though acting as agents. The Court stated (pp. 225-227):

> "As to knowledge or acquiescence of officers of the Federal government little need be said. The fact that Congress through utilization of the precise methods here employed could seek to reach the same objectives sought by respondents does not mean that respondents or any other group may do so without specific Congressional authority. Admittedly no approval of the buying programs was obtained under the National Industrial Recovery Act prior to its termination on June 16, 1935, (sec. 2(c)) which would give immunity to respondents from prosecution under the Sherman Act. Though employees of the government may have known of those programs and winked at them or tacitly approved them, no immunity would have thereby been obtained. For Congress had specified the precise manner and method of securing immunity. None other would suffice."

The Court went on to say (pp. 227-228) that the fact that the buying programs may have been consistent with the general objectives and ends of the NIRA is likewise irrelevant to the legality under the Sherman Act of defendants' activities while the act was in effect, since price fixing combinations which lack Congressional sanction are illegal per se.

That a person cannot use lawful activity in an unlawful manner for an unlawful purpose and for an unlawful end and still have antitrust immunity was again reiterated in *Maryland & Virginia Milk Pro. Ass'n v. United States*, *supra*. The Court stated (pp. 466-467):

> ". . . [the Capper-Volstead Act] does not suggest a congressional desire to vest cooperatives with unrestricted power to restrain trade or to achieve monopoly by preying on independent producers, processors or dealers intent on carrying on their own businesses in their own legitimate way."

The Court held the conduct complained of constituted anti-competitive activities so far outside the "legitimate objects" of a cooperative that, if proved, it would constitute a clear violation of Section 2 of the Sherman Act.

In the same way, the fact that Electromet of Canada had an agency agreement with an agency of the Canadian government is basically immaterial when it is proved that the corporation was under the complete domination and control of Union Carbide and that the agency relationship was used by Union Carbide and VCA to further their monopoly and conspiracy to control the American vanadium industry and, in furtherance of said conspiracy, to eliminate petitioners' Canadian business and thereby destroy them as a competitor to respondents in the American market.

To the same effect are: *Kobe, Inc. v. Dempsey Pump Co.* (10 Cir. 1952), 198 F.2d 416, *cert. denied* 344 U.S. 837 (1952); *Bankers Life and Casualty Company v. Larson* (5 Cir. 1958), 257 F.2d 377; *Floyd v. Gage* (4 Cir. 1951), 192 F.2d 137; *Crummer Co. v. Du Pont* (5 Cir. 1955), 223 F.2d 238, *cert. denied* 350 U.S. 848.

Legal means may not be used to accomplish an illegal objective. (*American Tobacco Co. v. United States*, 328 U.S. 781 (1946); *Kobe, Inc. v. Dempsey Pump Co.*, supra;

United States v. Socony-Vacuum Oil Co., supra.) And if a combination or conspiracy taken as a whole violates the antitrust laws, it is not purged of its unlawfulness just because part of it may be valid. *United States v. Bausch & Lomb Optical Co.*, 321 U.S. 707 (1944); *American Tobacco Co. v. United States* (6 Cir. 1944), 147 F.2d 93; *Aikens v. Wisconsin*, 195 U.S. 194 (1904).

The recent decisions of the Circuit Court of Appeals for the Tenth Circuit in *Union Carbide and Carbon Corporation, et al. v. Howard Balsley, et al.* (Civil Action No. 6321) and *Union Carbide and Carbon Corporation v. Frank Nisley* (Civil Action No. 6319), (10 Cir. 1961) 1962 Trade Cases, Par. 70,222, page 75,805, involved these same defendants, this same industry, and the same overall conspiracy alleged in the case at bar. The Court of Appeals affirmed the implicit findings in the jury verdict that an overall conspiracy to take over every phase of the vanadium industry existed and caused injury to the plaintiffs. In the *Nisley* case, the plaintiff, as the respondents in the case at bar, was an independent miller who was put out of business by the acts of these defendants. In both cases, the defendants raised as a partial defense the fact that defendant Union Carbide had certain agency relationships with the government and hence those activities were immune. The court on appeal rejected this contention and held that there was nothing in the agency agreements which justified the interference that the government intended to transgress the antitrust laws and that there was no authority in the agreements to fix prices, restrain trade or achieve a monopoly in the vanadium industry by combining with its competitor, VCA. (1962 Trade Cases, Par.

70,222, page 75,816.) In the *Nisley* case, the court stated further, at page 75,830:

> "What we said in that respect Balsley is apposite here, and we may add that it is one thing to incite or influence government action which results in monopolistic practices as in Eastern R. Conf. v. Noerr Motors, 365 U.S. 127. It is quite another thing to utilize, or attempt to utilize, governmental powers conferred upon a private agency such as USV (Union Carbide) for unintended and illegal ends."

One last observation: granted the all-embracing conspiracy to restrain and to monopolize and the actual monopolization of the vanadium industry in all its phases —how better maintain that monopolization during times of stress which promise alleviation to its victims in the form of new competitive factors, than by the use of governmental relationships (acquired by the monopolist for legitimate ends) to destroy or to neutralize those new competitive forces? The Canadian subsidiary was just the weapon required to maintain the monopoly in Canada and to deprive petitioners of an important market during the war. The temptation to use the governmental agency acquired by that Canadian subsidiary to further the monopoly proved too great for these respondents.

CONCLUSION

For the foregoing reasons petitioners respectfully urge that the Court reverse the judgment entered herein and remand the action to the District Court for retrial.

Dated, March 1, 1962.

Respectfully submitted,

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(Appendix A Follows.)

Appendix A

During the trial, the trial Court did the following:

(a) Rejected as inadmissible all evidence and testimony offered by the petitioners to show the terms, origins, nature, purpose and scope of the conspiracy and combination of the respondents from 1933, the year in which appellants alleged the conspiracy was formed, to 1938, on the grounds that petitioner entered this country in 1938 (R. 112-113, 118-119; Offer of Proof, R. 308-327; 422-434; 151-152, 194; 256-268; 601-603; 1985-1986);

(b) Rejected all evidence pertaining to respondents' suppression of petitioners' Canadian business as part of their overall conspiracy and the exclusion of petitioners from Canadian Markets (R. 801-808; 831-838; Offer of Proof, R. 801-840);

(c) Rejected as inadmissible evidence that respondent Union Carbide informed petitioners that they had no business in the vanadium industry, threatened petitioners to stay away from Climax Molybdenum Co., a manufacturing associate of petitioners which produced petitioners' product, or reprisals would be taken against Climax (R. 813-818; 826-834; 845-851; 1008-1012);

(d) Excluded evidence offered by petitioners as to their overall business success and their ability to succeed in other allied fields of ores, minerals and alloys (Pl. Ex. 121 for Id.; R. 469; 1087; Pl. Ex. 123 for Id.; R. 536, 1097; Pl. Ex. 124 for Id.; 537, 1103; Pl. Ex. 125 for Id.; R. 539, 1106; Pl. Ex. 126 for Id.; R. 541; 1106; Pl. Ex. 139-141 for Id., R. 543-545, 1260-1264);

(e) Persistently told the jury that activities in prima facie violation of the antitrust laws were "good business judgment", a "good proposition", and not "improper". (R. 209, 245, 246, 558, 561, 586.) In effect, these statements amounted to an instruction to the jury that good business judgment was an absolute defense to Sherman Act violations. (R. 1909-1910; 245, 246, 255, 256, 561, 563, 586, 611, 869, 1647, 1709, 1833.) This error was magnified in its instructions, when the Court told the jury that ". . . You cannot find that the defendants entered into an unlawful agreement or conspiracy because you disagree with their business judgment." (R. 2029.) The trial Court failed to qualify its instructions on individual business judgment (R. 2028-2029);

(f) Instructed the jury on the public injury doctrine specifically rejected by this Court in *Klor's, Inc. v. Broadway-Hale Stores*, 359 U.S. 207 (1959); *Radiant Burners, Inc. v. Peoples Gas Light and Coke Co.*, 364 U.S. 656 (1961). (R. 2035-2036.) In fact, the "public injury" instruction offered by respondents and given by the trial Court specifically cited the Ninth Circuit *Klor's* decision which this Court unanimously overruled;

(g) Erroneously instructed the jury that any acts of the respondents as agents of the Government, American or Canadian, could not be considered by the jury as part of the illegal agreement, plan or monopolization herein involved (R. 2033);

(h) Required petitioners to prove damages to a reasonable certainty and to prove that, but for the conspiracy, petitioners would have had vanadium products to sell and would have sold them at a profit. (R. 2032.) In so

doing the trial Court in complete seriousness stated "But somebody has to start reversing the Supreme Court" (R. 2011);[33]

(i) Refused to instruct the jury that a conspiracy to refuse to deal was per se illegal (R. 2031);

(j) Repeatedly questioned the materiality and import of petitioners' evidence (R. 221, 249, 325, 599, 751, 753, 1323, 1324, 1581, 1603, 1621, 1644, 1646, 1656, 1801, 1909-1911, 1924, 1979, 1984), and, to petitioners' prejudice, continuously minimized and questioned the weight and credibility of petitioners' evidence and witnesses. (R. 560, 561, 1413-1414, 1422, 1581, 1804, 1904, 1910, 1962-1963.) By its unwarranted interference in these respects, the trial Court prevented petitioners from making a full, orderly and fair presentation of their case, and gave the jury an impression that their decision should be for respondents;

(k) Permitted counsel for respondent VCA to inform the jury in his opening statement that these same respondents had been acquitted in a prior government suit based on these same facts. (R. 111.)

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[33]"Mr. Alioto. I would suggest this, if your Honor please; it has been done in other cases, and we have done it pretty usually in our proposed instructions: Just take that instruction from the *Bigelow* case and give it directly and verbatim. No one can object to the language of Justice Stone . . . The Court. Yes. But somebody has to start reversing the Supreme Court. (R. 2011.)"

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IN THE

Supreme Court of the United States

OCTOBER TERM, 1961
No. 304

CONTINENTAL ORE COMPANY, a Partnership, and HENRY J. LEIR, ERNA D. LEIR, LINA SCHLOSS, as Individuals and as Partners Under the trade name and style of CONTINENTAL ORE COMPANY,

Petitioners,

—vs.—

UNION CARBIDE AND CARBON CORPORATION; UNITED STATES VANADIUM CORPORATION; ELECTRO METALLURGICAL SALES CORPORATION; ELECTRO METALLURGICAL COMPANY OF CANADA, LIMITED; VANADIUM CORPORATION OF AMERICA,

Respondents.

ON WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE NINTH CIRCUIT

BRIEF FOR RESPONDENT VANADIUM CORPORATION OF AMERICA

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IN THE

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OCTOBER TERM, 1961

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CONTINENTAL ORE COMPANY, a Partnership, and HENRY J. LEIR, ERNA D. LEIR, LINA SCHLOSS, as Individuals and as Partners Under the trade name and style of CONTINENTAL ORE COMPANY,

Petitioners,

—vs.—

UNION CARBIDE AND CARBON CORPORATION; UNITED STATES VANADIUM CORPORATION; ELECTRO METALLURGICAL SALES CORPORATION; ELECTRO METALLURGICAL COMPANY OF CANADA, LIMITED; VANADIUM CORPORATION OF AMERICA,

Respondents.

ON WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE NINTH CIRCUIT

BRIEF FOR RESPONDENT VANADIUM CORPORATION OF AMERICA

Questions Presented

This Court limited this appeal to three questions. Its order set forth those questions as posed in the petition for certiorari (R. 2584-2586; Pet. Br., pp. 4-5).[1] But the

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[1] All "R." references are to pages of the printed Transcript of Record, which consists of nine volumes. Volumes VI and VII contain the exhibits printed in the court below; Volume VII also

language used by petitioners in framing these questions, and the inclusion in their statement of the case of much that is not material to the consideration of these questions, present a distorted picture of the posture of the case as it comes to this Court and of the limited nature of the issues here to be decided.

The basic question, simply stated, is whether the proof proffered by petitioners was sufficient rationally to permit a finding that they had in fact been injured in their business by acts of the respondents forbidden by the antitrust laws.

Statement of the Case

1. *Introduction*

Petitioners, suing for treble damages under section 4 of the Clayton Act, had to prove that they were "injured in [their] business or property by reason of" something forbidden in the antitrust laws (15 U. S. C. §15; Pet. Br., p. 3). Their complaint therefore alleged, whatever may be petitioners' theory now, that they were eliminated "from the industry of independent producers and distributors of ferro-vanadium and vanadium oxide" as "one of the direct effects proximately caused" by respondents' alleged mo-

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includes the opinion and orders of the court below and the order allowing certiorari (R. 2565-2586). Volumes VIII and IX contain the additional exhibits printed in this Court.

All references to exhibits are followed by the pages of the Record at which the exhibit appears and at which it was offered in evidence. Where the exhibit appears in Volume VIII or IX, the volume is also included.

All references to "Pet. Br." are to pages of "Petitioners' Opening Brief" in this Court.

All italics in this brief are ours unless otherwise indicated.

nopolistic practices (R. 16, par. 30; see also R. 23-24, par. 45).[2]

A jury, after a three week trial, returned a general verdict for respondents. Petitioners appealed from the judgment entered on that verdict, contending it was the product of varied errors committed in the course of trial.

The Court of Appeals considered only whether petitioners had supported their essential allegations of proximate cause—"Our problem is to determine whether or not the evidence could have justified jury findings that [respondents'] alleged illegal acts were in fact the cause of [petitioners'] failure in various adventures into the business" (R. 2572). Concluding the evidence could not support such findings, the Court of Appeals affirmed the judgment for respondents (R. 2572-2573, 2583).

The three questions on which certiorari has been granted relate only to whether the record—including certain evidence petitioners offered, if admissible—could support a finding of the necessary causal connection between respondents' alleged wrongdoing and petitioners' alleged loss. It is therefore unnecessary in this counter-statement to correct petitioners' varied misrepresentations of the evidence on questions not before this Court (Rule 40(c)).

But it should be emphasized at the outset that the trial court and the Court of Appeals took nothing away from the jury, nor did the Court of Appeals order a directed

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[2] The same monopolistic practices were alleged in an indictment returned against respondents and others in June 1946 by a Federal Grand Jury at Denver, Colorado, which was later dismissed by the Government and superseded by a criminal information filed on September 2, 1948, entitled *United States* v. *Union Carbide and Carbon Corporation, et al.*, No. 11678, in the District Court for the District of Colorado (R. 22, pars. 41-42). After a full trial the criminal action was terminated by a jury acquittal of all defendants on June 4, 1957. No civil suit was brought by the Government at any time.

verdict against petitioners, despite petitioners' suggestions in Questions 1 and 3 (Pet. Br., pp. 4-5). The case had been submitted to the jury and the jury returned a general verdict for respondents (R. 2051).

Nor does the submission of the case to the jury indicate, as petitioners argue, that "the trial judge thought that the evidence presented a factual jury issue" (Pet. Br., pp. 67, 91-92). The trial judge had reserved decision on respondents' motion for a directed verdict (R. 1989). When the jury returned its verdict for respondents, he unmistakably expressed his concurrence with it (R. 2052). It may be, of course, that he personally disbelieved the testimony of Blair Burwell, the patently disgruntled former vice-president of one of the Union Carbide subsidiaries, on whom petitioners rely so heavily and who alone in the entire record supposedly "admitted" and "confessed" the destruction of petitioners to be "an important goal of the monopolists" (Pet. Br., pp. 4, 68).[3] Perhaps the trial judge agreed with the jury because he saw no sufficient evidence of conspiracy or for a number of other reasons. But, with his reservation of decision on the motions for a directed verdict, nothing supports petitioners' inference that he thought they had presented a jury question on the causation issue.

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[3] Petitioners have evidently found it convenient to use the collective "respondents," without distinguishing between those in the Union Carbide group and the independent Vanadium Corporation of America. The result is frequently misleading.

Thus petitioners refer to "a confession by one of respondents' Chief Executive Officers" (Pet. Br., p. 18). This alleged confession came from the same Blair Burwell. The record shows only that he had been a vice-president of United States Vanadium Corporation, one of Union Carbide's subsidiaries, and the assistant to the vice-president in charge of its mining operations (R. 137).

Of course, there was no admission at all. Burwell, at the time of trial, was not connected with any respondent, and never had been a director, officer or employee—much less one of the chief executive officers—of Vanadium Corporation of America.

So too the questions on which certiorari has been granted make it unnecessary to consider the sufficiency of the evidence of respondents' alleged violations of the Sherman Act (Pet. Br., pp. 14-36). But nothing supports petitioners' further claim, in Question 1, that this alleged monopoly was "admittedly achieved pursuant to an intent to monopolize" or that the "question of violation is confessed" (Pet. Br., p. 4; see also, *e.g.*, pp. 16, 18, 68, 69, 74, 78). Indeed, all respondents bitterly contested these charges of violation and, as the Court of Appeals noted, challenged the sufficiency of petitioners' evidence on this issue (R. 2572).[4]

The Court of Appeals did not find evidence of violation; it merely "*assumed*" that such evidence was adequate, without discussion, because it had concluded that the judgment clearly had to be affirmed by reason of a fatal failure of proof of causal connection. In short, no violation of the statute was confessed or admitted by any respondent or, in view of the jury's verdict, proved against it.[5]

Similarly immaterial here are the numerous and varied other alleged errors in the conduct of the trial and the charge to the jury which petitioners specified in the Court of Appeals, some of which they repeat here (Pet. Br., p. 67, App. A). The Court of Appeals could have con-

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[4] As noted below, petitioners' business was the purchase and sale of vanadium oxide or the conversion of such oxide into ferrovanadium. But there was no proof that petitioners did not have adequate supplies or that additional supplies were not available to them (*infra*, pp. 8-10, 29-42).

[5] Petitioners' Question 1 also argues that "the issue of measurement of damages is more than sufficiently supported by relevant economic data" (Pet. Br., p. 4).

Here too, as the Court of Appeals noted, respondents challenged the sufficiency of the evidence (R. 2572). Here again its sufficiency was *assumed*, without discussion, by the Court of Appeals because of the affirmance of the judgment below on another ground (R. 2572).

sidered each in turn, found them baseless or harmless and affirmed the judgment for respondents. Instead it found such consideration unnecessary, again because the judgment had to be affirmed for failure of proof of causation (R. 2576, 2579, 2581, 2582-2583).

The basic question, therefore, is whether the Court of Appeals was correct in its disposition of the appeal. Its opinion reflects a meticulous detailed review of the evidence—looking "not only at all the evidence admitted by the trial judge, but also at all the evidence offered by [petitioners] but excluded below" (R. 2572). We submit that the record, viewed most favorably to petitioners, permits only the conclusion below that the evidence was insufficient to justify a verdict that the "necessary causal relation existed" between the alleged illegal acts and petitioners' failure (R. 2572-2573), and that that conclusion permitted no result except affirmance of the judgment for respondents entered on the jury's verdict (R. 2583).

2. *The Vanadium Industry*

Vanadium is a metallic element found domestically, in the same ores as is uranium, in a four-state area known as the Colorado Plateau (R. 7-8, Comp. pars. 12, 14 not denied; R. 139-140). The ores are first mined and then milled into vanadium oxide at mills near the ore deposits, on the Colorado Plateau (R. 1826-1827; Ex. 6, R. 2069-2071, 115; Ex. 7, R. 2072, 116). The oxide is then converted, in electric furnaces or through an aluminothermic process at plants in the East, into ferrovanadium (*Ibid.;* R. 1827-1828).

Ferrovanadium, the finished product, is an alloy used to harden steel and the steel companies are the major customers for it (R. 7, Comp. pars. 12, 13 not denied; R. 1525-1529; R. 1824-1825). When added to steel, as peti-

tioners admit, ferrovanadium increases the strength of the steel and provides toughness necessary for use in the manufacture of high speed tools, machine and automobile parts and armor plate (Pet. Br., p. 6, note).

Vanadium was a declining industry before World War II because of competition from molybdenum and other cheaper alloys (R. 146, 155, 157, 1528, 1682). Respondents made major efforts to find new uses for vanadium (R. 153, 1689, 1823-1826). Sales, not production, was the problem.

The industry was easy to enter. The ore was plentiful (R. 139, 1553). As petitioners conceded, anyone could find it, mine it and mill it (R. 1199). In 1938, when petitioner Leir came to this country, a plant could be built for about $50,000 to produce 15,000 pounds of vanadium oxide a month (R. 210). But, as petitioners soon discovered, anyone could simply buy vanadium oxide already milled and either sell it or make ferrovanadium at will.

The early stages of the war, however, produced a sudden spurt in demand, principally for weapons (R. 160, 189-190, 1526). The domestic surplus found a profitable market abroad (R. 1233-1234), but the conditions which led to increased demands also resulted in Government restrictions within a very short time.

In July 1940 vanadium was subjected to an embargo on exports (R. 1234). Even before the United States entered the war, there were priority allocations on vanadium as a strategic material, and later price regulation of vanadium oxide and ferrovanadium under the O.P.A. (Ex. U-5-P, R. 1367-1368; Ex. V-2-P, R. 1865-1867; Ex. U-5-O, R. 1363-1367; Ex. U-5-C, R. 985-986; 7 F.R. 4698; 7 F.R. 10934; 8 F.R. 17511; 10 F.R. 10429; Ex. V-2-M, R. 2555-2564, 1727-1728; Ex. U-5-D, R. 2462-2466, 987). Respondents were asked to increase their production substantially and quickly

(*infra*, p. 11). As petitioners' witness Burwell said of the 1941-1942 period, "and then the war hit us. And now we had a situation that was entirely different develop. For the first time there was no matter or question of who was your customer. Uncle Sam needed the vanadium" (R. 160).

In 1942 Metals Reserve Company, a Government corporation, started to buy up all the vanadium ore it could get in an effort to conserve it for war needs; prices went up and the supply tightened. Through ownership of mills and agreements with mill owners, Metals Reserve Company also took over much of the processing of the ores into vanadium oxide (R. 161; Ex. U-B, R. 2358-2363, 367; Ex. U-D, 2369-2381, 373; Ex. U-I, R. 2381-2384, 393; Ex. U-4-T, R. 2457-2458, 968; Ex. U-R, R. 2410-2416, 436-437).

Then in 1943 the United States Army began to acquire uranium-bearing properties for the secret Manhattan Project, the ultimate purpose being the production of materials for nuclear fission, including the atomic bomb (Ex. U-Q, R. 2397-2409, 418). By the end of 1943, the United States controlled vast quantities of vanadium and uranium ores and oxides (Ex. U-5-T, R. 2485, 1985). By 1944 the shortage was over, as petitioners concede (Pet. Br., p. 56). Vast quantities of vanadium ores and oxides became available, from private producers as well as the Government stockpile, and could not be sold (R. 527).

3. *The Parties*

A. Petitioners

Petitioner Continental Ore Company is a partnership composed of petitioners Henry J. Leir, his wife Erna D. Leir, and his mother-in-law Lina Schloss. The partnership succeeded in 1942 to the assets of Continental Ore Corpora-

tion, also controlled by the same three individuals (R. 1033). Leir was the guiding spirit of the corporation and partnership and there is no evidence that Mrs. Leir or Mrs. Schloss participated in the business in any way.

Leir, a native German, arrived in this country in 1938, after a five-year period in Luxembourg (R. 1034, 1045-1047). Like Continental's vice-president Martin Wolf who emigrated in late 1941 and joined him in early 1942, Leir was primarily a merchant and broker in ores and minerals (R. 787, 790-791, 1035-1046).

Not surprisingly, therefore, Continental during the period involved in this action, engaged in trading in a number of ores and minerals (R. 1083-1086, 1103-1104). It had no interest in mining vanadium ore on the Plateau—although Leir agreed "definitely" that anyone with sufficient financial resources could have acquired sufficient ore-bearing bodies and constructed a plant to produce vanadium oxide (R. 1199)—and vanadium was but a small part of its activities (R. 1083-1086, 1103-1104).

Continental never owned any mines or bought any ore on the Plateau (R. 897). There is no proof that it ever milled vanadium oxide. It had no one with training or practical experience in metallurgy on its regular staff (R. 910-911). It only hired consultants from time to time for a particular problem (*Ibid.*). "That is the way we operate. We hire technicians, we hire attorneys, we hire any particular specialist we need" (*Ibid.*). As petitioners' brief states, they "were distributors and agents in [vanadium oxide and ferrovanadium] and, after a time, in other alloy metals" (Pet. Br., pp. 5-6). The investment made by Continental in this business was minimal (R. 932, 1211-1215).

Instead, as the uncontradicted evidence shows, petitioners sought during the war boom and shortage (1) to buy vana-

dium oxide and sell it for a profit, (2) to buy vanadium oxide, induce others to process it into ferrovanadium with their own capital and facilities, and then sell the product, and (3) to buy vanadium oxide, repackage it and sell it under the trade name "Van-Ex" at a price greater than that permitted by the Office of Price Administration. These were petitioners' activities until 1944.

Then, the war shortage over and the demand gone, petitioners lost interest in vanadium and thereafter traded in it only sporadically (Ex. 119, R. 2212, 1089).[8]

B. Respondent Vanadium Corporation of America

Vanadium Corporation of America—hereafter sometimes VCA—was organized in 1919 (R. 1965). As petitioners point out, it is a fully integrated miner, miller of vanadium oxide and manufacturer of ferrovanadium (Pet. Br., p. 13).

Since its organization, VCA has pioneered in the technical and commercial development of vanadium and has long been a recognized leader in vanadium, as well as a principal producer of many other ferro-alloys (R. 1689, 1824-1826).

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[8] During or after the period involved in this action Leir evidently engaged in a number of other enterprises concerned with a variety of products, in addition to Continental Ore Company and Continental Ore Corporation.

The record contains references to (1) Austro-American Aluminum Corporation, which dealt in alumina and aluminum; (2) the Borites Corporation, which dealt in a mineral known as barytes; (3) the Coal Export Corporation, which exported "coal derivatives, coal tar products"; (4) another corporation which dealt in phosphates used for agricultural purposes; (5) the Magnolithe Corporation, which "was interested in the introduction of magnesia products—for sugar mills, for instance"; (6) the International Ore and Fertilizer Corporation; (7) the Continental Lead and Zinc Corporation, which dealt in lead and zinc; (8) the Continental Aluminum Corporation, which dealt in aluminum; and (9) the International Asphalt Corporation, which dealt in asphalt products (R. 1097-1102).

VCA sells vanadium mainly in its finished product form of ferrovanadium, and most of its vanadium oxide has been utilized in this way (R. 8, Comp. par. 15 not denied; R. 1827). Its customers include the leading steel manufacturers in this country (R. 7, Comp. par. 13 not denied; Ex. 17, R. Vol. VIII 73-132, R. 124)—a business achieved by technical leadership in adapting vanadium to the needs of customers, extensive research, the employment of skilled technicians who go out in the field and instruct steel makers in the proper uses of vanadium, and sales efforts devoted to persuading steel users to specify vanadium steels (R. 1824-1826). Because of the technical cooperation and supervision its customers have come to expect, VCA has never attempted to market vanadium through brokers (R. 1966).

VCA had owned a few vanadium-bearing ore bodies in the Colorado Plateau as early as 1919 and an idle vanadium mill at Naturita, Colorado, acquired by foreclosure in 1932 (R. 1827; Ex. 6, R. 2069-2070, 115). Its position as a producer, however, has historically been attributable to its ownership of what was formerly the richest vanadium mine in the world, located atop the Andes Mountains in Peru (R. 1828-1831). Vanadium ore could there be mined, and the ores milled into vanadium concentrate for refining, much less expensively than on the Plateau (R. 1829, 1923).

VCA did not commence raw material development in the United States until late in 1939, when imminent war in Europe threatened to isolate the Peruvian deposits and make its supply situation acute (R. 1826, 1956). VCA then undertook to rehabilitate the old plant it owned at Naturita and began operations there in 1940 (Ex. 6, R. 2069-2071, 115; R. 1918). In 1941 the Government urged VCA to increase its production from an annual rate of 2,700,000 to 4,000,000 pounds of vanadium by the end of 1942; by 1942 it had begun its operation of a Government-built plant in Monticello, Utah (Ex. V-2-O, R. 1837-1839).

Thus VCA, unlike petitioners, was in the vanadium business on a permanent basis and as a result of a large investment and sustained research and development (Ex. 6, R. 2069-2071, 115; R. 1689, 1824-1825). Indispatably it was a leading company. There is no question but that about 1938, when Leir arrived in this country, VCA and the Union Carbide group produced substantially all the ferrovanadium sold in the United States (Ex. V-2-M, R. 2556-2557, 1727). But insofar as supplies of ore and oxide were concerned there were forty or fifty other mining groups competing on the Plateau, and one of them had "far more ore than the Vanadium Corporation did" (R. 390, 509). And it is also undisputed—indeed it is conceded by petitioners' chief witness who recognized that VCA "had a strong, a long experience in marketing" (R. 505)—that VCA and the Union Carbide group had long been bitter competitors on the Plateau for such vanadium business as existed (R. 491, 504-505, 509, 1674-1675, 1680-1681).

C. The Union Carbide Respondents

Respondent Union Carbide Corporation (known as Union Carbide and Carbon Corporation when the action was commenced), during the period covered by the complaint, was the parent of a group of companies engaged in the mining, milling and sale of vanadium ores, vanadium oxide and ferrovanadium, as well as other ferro-alloys (R. 153, 164-166; Ex. 6, 2070-2071, 115).

Respondent United States Vanadium Corporation (USV), a wholly-owned subsidiary of Union Carbide, operated a mill for the processing of vanadium ores at Rifle, Colorado, from 1927 to 1932 (Ex. 6, R. 2070, 115). In 1932 the mill was shut down and sometime later dismantled (*Ibid.*). In 1936, USV erected another oxide mill at Uravan, Colorado, and, in 1942, another at Rifle, Colorado (*Ibid.*). It con-

tinued as a subsidiary until after the complaint was filed and was then merged into Union Carbide.

Three other Union Carbide subsidiaries were named in the complaint but were never served: Electro Metallurgical Company (Electromet or EM), which made ferrovanadium from vanadium oxide until its dissolution on January 5, 1949; Electro Metallurgical Sales Corporation (Electromet Sales or EMS), which sold vanadium products until its merger into the parent on March 14, 1949; and Electro Metallurgical Company of Canada (Electromet of Canada), a Canadian corporation, which sold ferrovanadium and vanadium oxide.

4. *The Core of Petitioners' Complaint*

The complaint charges violations of Sections 1 and 2 of the Sherman Act by reason of the same contracts, combination, conspiracy and monopoly alleged in the Government information, the trial of which resulted in respondents' acquittal (R. 13-16, 22; *supra*, p. 3 note). As already pointed out, the sufficiency of petitioners' evidence in support of these charges is not the question now before the Court (*supra*, p. 5).

More to the point here is petitioners' own claim of injury "by reason of" such assumed violations. They claim they were one of the "independent producers of ferrovanadium and vanadium oxide" who were "eliminated from the industry" as "one of the direct effects proximately caused by the monopolistic practices" alleged. Their complaint describes their four separate alleged ventures in the vanadium field (R. 16-21, pars. 30, 32-38; see also R. 23-24, par. 44-45). It was these ventures which petitioners had to prove at the trial were in fact frustrated by respondents' allegedly unlawful acts.

These ventures cover a period of about six years—from July 1, 1938, when Leir's Luxembourg corporation entered into a contract with Apex Smelting Company in this country, until sometime in 1944, when petitioners allege "Continental was forced to leave the vanadium industry altogether" (R. 17, par. 32; R. 21, par. 39). And through 1942, or during most of that six-year period, as they now point out in their brief, petitioners' vanadium sales grew (Pet. Br., p. 64). It was in 1943, the year of wartime scarcity and controls, that petitioners claim their business "suffered a severe decline" (*Ibid.*).

5. *Petitioners' Four Ventures in the Vanadium Business*

A. The Apex Contract Period

This period was the longest of petitioners' six-year connection with the vanadium business. According to the complaint, it ran from July 1938 to the spring of 1942 (R. 17-18, pars. 32-33). During this period petitioners' sales grew as vanadium enjoyed its early war boom (Pet. Br., p. 64).

En route to this country in 1938, Leir discussed with a shipboard acquaintance "the idea of going into the ferro-alloy business in general, including ferro-vanadium" (R. 1048-1049). He told him of a French process in which vanadium oxide was blended with other ingredients, mainly small pieces of aluminum, and then put in a crucible to be ignited with a small charge of magnesium (R. 792, 1049). The acquaintance thought Leir should see Apex Smelting Company in Chicago "because [they] were makers of aluminum, and aluminum was a part of our process" (R. 1049). That was the genesis of the Apex arrangement.

Leir conducted the negotiations which led to a contract dated July 1, 1938. The arrangement certainly was unusual. The parties were Apex and Societe D'Electro-Chimie de

Brignoud, a French corporation sometimes known as Frodet-Kuhlman (Ex. 117, R. 2190-2198, 1050; R. 1042). Contrary to the allegations of the complaint, neither Leir nor his Luxembourg corporation (Societe Anonyme Des Minerais) was a party to the contract (*Ibid.*; R. 17, par. 32). In brief, Brignoud was to sell its "secret process" to Apex in the United States and Canada, and Apex was to set up a separate department to make steel alloys. The profits were to be shared, but one-half of Brignoud's share was destined for the Leir's Luxembourg corporation; in December 1940 this interest was transferred to Continental (Ex. 117, R. 2198-2201, 1050; R. 1058). Six months later Continental reduced its share of the profits in exchange for appointment as Apex's exclusive sales agent at a 2½ per-cent commission (Ex. 117, R. 2187-2189, 1050; R. 1059, 1234).

There were obvious hazards in the arrangement. Apex had never made ferrovanadium; it was to be, as Leir said, "a new business for them" (R. 800-801, 1060-1061). Apex was to supply all the financing for the venture (R. 1115)—but nothing stipulated how much. Petitioners supplied no capital, but were to procure raw materials for Apex (R. 1115-1117).[7] And Apex, to produce a new product in its Chicago plant with its own employees, had to rely on Brignoud in France for the process and the necessary technical information (R. 910-911, 1293).

Over two years later—in August or September 1940—Apex finally produced its first ferrovanadium (R. 1062, 1124). In the interim, Continental, which was to supply the

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[7] Under the Leir's Luxembourg corporation's "joint venture" with the French corporation, Leir had procured the raw materials—from South America, South Africa, Portugal and Burma—and had handled the sales, while the French company did the actual production (R. 789). But in that venture, unlike the Apex arrangement, the financing had been "fifty-fifty" (*Ibid.*).

raw materials for Apex's manufacturing operation, had a steady source of supply of vanadium oxide (R. 1124-1125). But the oxide was resold, mostly in foreign trade (R. 1125-1127, 1233-1234). These export resales stopped in July 1940, Leir admitted, because of the export ban (R. 1234). Continental nonetheless continued to sell large quantities of oxide to others than Apex through 1940 (Ex. U-5-N, R. Vol. IX 591-599, 1236-1237).

A little more than a year later Apex wanted to discontinue manufacturing operations in the face of continuing losses. Whatever promise the participants may have seen in the Apex arrangement in 1938, the record abounds with uncontradicted evidence of the true reasons for its frustration —reasons in no way connected with respondents. All of these reasons are specified in the contemporaneous correspondence between Apex and petitioners themselves.

In the first place, the venture was admittedly inadequately financed. Petitioners, who had no obligation to invest anything, wanted Apex to invest more. In February 1942, Leir wrote Apex a long letter, complaining bitterly that Apex had "treated the Ferro Department as a stepchild from the very beginning" and that the department "has never had the necessary equipment" (Ex. V-2-A, R. Vol. IX 603-608, 1176). He listed a series of conversations about a "new plant" which never materialized (*Ibid.*). At the trial, when asked if this fairly stated the situation, Leir replied he had written "an excellent letter" (R. 1185). Apex readily agreed that its investment had been "greatly inadequate for a sound and efficient business" (Ex. V-2-C, R. 2523, 1194).

There had also been persistent technical difficulties. Apex received little advice or assistance from the French company which owned the process, primarily because of the

outbreak of the war before Apex started production. Apex was forced to rely on its own experimentation and the results were faulty quality and considerable delay (Ex. V-2-B, R. 1188-1189, 1187; R. 1293-1294, 1349-1351). Not until late in 1941 had production difficulties been completely solved (R. 1351).

Moreover, Apex had difficulty finding in this country aluminum with a low copper content, essential to the operation (R. 873, 1217). It had anticipated using aluminum it produced from scrap aluminum, but it later found it necessary to go to a high purity primary aluminum which was difficult to get under wartime priorities and more expensive under price controls (R. 1280-1281; Ex. V-2-A, R. Vol. IX 603-608, R. 1176; Ex. V-2-B, R. 1189-1190, 1187).

Then in late October 1941—a few months after its first production of ferrovanadium—came a fire in the Apex ferro department which forced a shutdown of operations and prompted Apex to notify Continental of its wish to terminate ferro-alloy manufacture (R. 669, 1154, 1281; Ex. V-1-S, R. 1155-1157, 1154).

The fire was followed, even before production was resumed, by labor trouble related to the technical hazards of vanadium fumes and dust (R. 1283). On January 13, 1942 Apex wrote that it hoped "to get into production on Ferro Alloy this week, although we are having some difficulty with the labor, as most of them refuse to go to work in that Department. As you know, we have been trying to secure the proper respirators, but somehow or other, we have never been able to get any that keep the dust from getting into the men's throats and nostrils" (Ex. V-2-G, R. 2529, 1291). "It so happens," Apex reported a few days later, "that our men are now organizing, and the men that we have had in the Ferro Department refuse to go back into

it, as they claim that it is injurious to their health" (Ex. V-2-G, R. 2528, 1291).

Moreover, as an Apex officer testified, there had been "minor aggravations throughout the whole period of operation," as well as "lack of profit" (R. 1290). The ferro department "had been taking an awful lot of our time, too much a proportion of our time commensurate with the return to the company. In other words, accounting for a very small percentage of our sales in our operation, yet we were devoting an awful lot of executive time to it" (R. 1362).

Clearly Apex had been plagued in its attempt to finance a new department and make a product it had never made before. The basic contract gave it the right to terminate because of the losses it had sustained (R. 1191, 1295; Ex. 117, R. 2182-2201, 1050). Clearly too Apex had another, and even more compelling, reason to cancel the arrangement. Whatever attraction a new venture may have had in June 1938, the situation had changed by late 1941. Apex needed "space for production of aluminum, which was our principal business, and at that time was a very critical war material, the most critical" (R. 1291). The space "was much more valuable to us for aluminum operations than for ferro-alloy operations" (R. 1362).

After the October 1941 fire, Apex wrote Leir (Ex. V-1-S, R. 1155, 1154):

> "As our aluminum department is so vital a part of the defense program, and as new problems on which decisions must be made are coming up practically all of the time, we have decided that we must concentrate all of our efforts and available space in this department, and must discontinue anything that would interfere with its operation."

If Leir thought he "would be materially affected by our discontinuance of operations," Apex added, it "could possibly continue operations" until the end of the year to fill existing orders for which it had sufficient inventory on hand (*Id.* at 1156-1157). But it thought suppliers of vanadium oxide should be notified to discontinue shipments (*Id.* at 1157).[2]

Leir went to Chicago and persuaded Apex to continue (R. 1157-1158, 1171)—for how long does not appear. But in late January 1942, only a few months later, faced with increasing difficulty finding men to work in its ferro department because of its "hazardous nature" as well as continued losses, Apex wired Continental (R. 1283; Ex. V-1-Y, R. 2519, 1173):

> ". . . we are compelled to advise you that we are forced to discontinue this department. Will do our utmost to fill present orders subject to approval from Washington."

On February 13, 1942, Apex wired, "Cannot see our way to continue production ferro department beyond March 10th" (Ex. V-1-Z, R. Vol. IX, 602, 1174). The next day it notified suppliers to stop shipments of oxide (R. 1284).

On February 16, 1942, Leir protested Apex's decision at length (Ex. V-2-A, R. Vol. IX, 603-608, 1176). He pointed out that ferrovanadium was also an essential war item, listed Apex's alleged past shortcomings and offered to increase Apex's participation in profits; if Apex insisted on termination, however, Leir was ready to discuss it but de-

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[2] Apex's letter reported it had received a notice of shipment from Nisley and Wilson (Ex. V-1-S, R. 1156, 1154).

Nisley, a witness for petitioners, testified he had been shipping to Apex and recalled that it was unable to take more because of the fire (R. 669).

manded a continuation for six months (*Ibid.*). Not hearing from Apex, Leir a week later threatened "steps to safeguard our interest" (Ex. V-1-W, R. 1168-1170).

To avoid further dispute with Leir, Apex agreed to a short extension of vanadium production (R. 1171, 1343). It operated its ferro department and produced ferrovanadium until April 1, 1942, and it produced Van-Ex—another vanadium product discussed below (pp. 20-23, 37-39)—at cost until July 1, 1942 (R. 1173). Apex's supplies of vanadium oxide and Van-Ex were shipped against orders it or Continental obtained (R. 1288). On final termination Apex offered its entire equipment to Continental, but Continental declined (R. 1360-1361; Ex. 122, R. 2215-2216, 2221, 1096; Ex. V-2-F, R. Vol. IX, 608-610, 1288). Apex then offered it to VCA (Ex. 130, R. 2225-2228, 1241; Ex. V-2-H, R. 2530-2532, 1359). Eventually VCA acquired Apex's supply of magnesite, a lining used for its crucibles, and nothing else (R. 1286-1287, 1361). Leir tried unsuccessfully to sell the remaining equipment for Apex, but Apex in 1943 finally abandoned the equipment (R. 1289, 1337-1338).

Thus ended petitioners' four years with Apex—the most extended and sustained of their four ventures in the vanadium business.

B. The Van-Ex Venture

Next in point of time, but overlapping somewhat the Apex period, came petitioners' efforts to promote a product called Van-Ex. It had started during the Apex period and continued at rented premises on Long Island, New York, according to the complaint, from August 1942 until sometime in 1944 (R. 18, par. 34).

Leir proposed Van-Ex to Apex on November 1, 1941 when, after the fire in its ferro department, he rushed to

Chicago to persuade Apex to continue ferrovanadium operations (R. 1158; *supra*, p. 19). Apex agreed to start experimentation with the new product (R. 1281-1282). Van-Ex, however, eventually turned out to be vanadium oxide, renamed and repackaged so that it could be sold at above-ceiling prices.

"The idea of making Van-Ex," Leir testified, "had been in our heads long before" the November 1 meeting (R. 1158). Within the month, however, he had been advised by a chemist, whom he accepted as an expert in the field, that "mixtures of vanadium with aluminum would lead necessarily to explosions" (Ex. V-1-T, par. 9, R. 2515-2516, 1163). He thought it likely that he would suggest reducing the amount of aluminum, but cautioned Apex, "until you have such new information from us, please do not prepare any mixtures for Van-Ex" (Ex. V-1-T, R. 2517, 1163). A week later, on December 3, 1941, he repeated that no Van-Ex should be prepared until receipt of further information about the aluminum content (Ex. V-1-U, R. 2518, 1164). Finally, it was decided not to use aluminum at all (R. 1166).

Continental also considered adding a little fluorspar to the vanadium oxide. Fluorspar did not provide heat but acted only as a flux (R. 844). But Leir thought it "would make the whole mixture a little more complicated for the one who analyzes it and who wants to imitate it" (Ex. V-1-B, R. 1161, 1005).

The first shipments of Van-Ex were evidently in March 1942 (Ex. 79, R. 2169-2173, 797). Later that month Apex reported that the first shipment had contained 2% fluorspar, "which could not be noticed," and thereafter it had been shipping "just the plain" oxide (Ex. V-1-X, R. 1171-1172).

Thus Van-Ex turned out to be vanadium oxide, without material additions. Apex regarded Van-Ex production as

a "straight packaging" of vanadium oxide (R. 1282).[2] Leir himself conceded, "At certain times straight vanadium oxide was shipped" as Van-Ex (R. 1172). Nothing in the record proves anything else.

It was offered to the steel trade as a substitute for ferrovanadium (R. 842). "Some of the companies," Continental's vice-president testified, "used plain vanadium oxide if they could get it to throw into their furnaces, not regarding or not caring too much in that war period whether they had a good recovery out of it, or whether it was economical or not" (R. 891).

Shortly after the first shipments of Van-Ex, the O.P.A. in May 1942 established the ceiling price for vanadium oxide at $1.10 a pound (R. 909; Ex. V-2-M, R. 2560, 1727). Continental, however, sold its Van-Ex at a price which brought it about $1.34 a pound of vanadium oxide—or 24 cents more than the ceiling price (R. 909-910). As Apex's officer testified, "We merely bought something and sold it at a higher price" (R. 1347-1348).

Apex continued to package Van-Ex for Continental at cost until July 1, 1942 (Ex. 122, R. 2215-2221, 1096; R. 871, 1071, 1173). After that the North Continent Mines (Shattuck) oxide shipments went direct to Continental, which had arranged to repack the material itself in "a little shop in Long Island" (Ex. U-3-Q, R. 2446-2448, 911; R. 843).

Petitioners made sales of Van-Ex through 1942 and early 1943, one of their customers being Atlas Steels Limited, a Canadian company (Ex. 79, R. 2169-2174, 797). Petitioners

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[2] In February 1942 Apex cancelled an order for steel drums "when we found that Van-Ex was changed to a different business . . . as there is no use in having cans for anything we are not going to produce" (Ex. V-1-V, R. 1166-1167).

offered no proof as to how long the Van Ex venture actually continued. They were not even sure when the Long Island plant was closed (R. 989).[10] The record indicates that the Van-Ex venture was virtually over by May 1943 at the latest. For instance, petitioners now point out that they needed a small pebble mill to make Van Ex (Pet. Br., p. 49). But the record shows that the pebble mill had been sold in May 1943 (R. 1211-1212).

By that time, moreover, Continental had launched a new venture—an arrangement, similar to some extent to the Apex arrangement, for the manufacture of ferrovanadium by Climax Molybdenum Company (*infra*, pp. 24-27, 40). The record shows subsequent shipments of ferrovanadium (Ex. 79, R. 2169-2174, 797). It shows only two more shipments of Van-Ex, one to Atlas in May 1944 and another to a Swiss concern in May 1946 (*Ibid.*; Ex. U-5-E, R. 2467, 991). So far as Continental's vice-president knew, this last shipment could also have been just plain vanadium oxide (R. 991-992).

The vanadium oxide shortage had eased by the end of 1943 (R. 269; Ex. U-2-C, R. 471-473). Then certainly there was no longer any demand for the over-priced Van-Ex substitute. As Continental's vice-president later pointed out, when refusing an offer of oxide for resale, its customers were "not too keen on the change-over from Ferro-vanadium to fused Vanadium Oxide although they had used the oxide during the war" (Ex. U-3-J, R. Vol. IX 560-561, 889).

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[10] Continental's vice-president testified (R. 989):

"Q. Well, when did you close the Long Island plant?
"A. I couldn't tell you any more than that.
"Q. Could you tell me the year?
"A. No, I don't know the year.
"Q. '44? '45?
"A. I believe it was '44."

C. The "Pending Negotiations" With Climax Molybdenum Corporation

In June 1943, according to the complaint, there were "pending negotiations for an arrangement with Climax Molybdenum Corporation to manufacture vanadium for Continental's account" (R. 21, par. 38).

We assume here *arguendo*, as the Court of Appeals assumed, that all the evidence offered by petitioners with respect to this venture was admissible. But the record is nonetheless barren of any evidence of the nature of the "pending negotiations" with Climax (see R. 817, 829).

The record does show that, in February 1943, Continental entered into a contract with Climax under which it agreed to ship to Climax 20,000 pounds of vanadium oxide, together with the necessary low copper aluminum for conversion, and Climax was to convert it into ferrovanadium for a fee (Ex. 111, R. Vol. VIII 182-183, 1014).[11]

The next month Continental requested the necessary oxide from Metals Reserve Company, which had to tell it that none was available (Ex. U-4-C, R. Vol. IX 567-568, R. 940-941). But in April 1943 Continental was able to get the 20,000 pounds of oxide called for by the Climax contract—half from Electromet and half from Metals Reserve Company—although for some time it continued to complain to Electromet about paying the regular $1.15 price for spot purchases of 500 pounds or more (Ex. U-4-D, R. Vol. IX 569, R. 942; Ex. U-4-E, R. Vol. IX 570, R. 943-944; Ex. U-4-F, R. Vol. IX 571-572, 945-946; Ex. U-4-G, R. Vol. IX 573-574, R. 946-947; Ex. U-4-H, R. 2451, R. 947-948; Ex. U-4-I, R. Vol. IX 575, R. 949-950; Ex. U-4-J, R. Vol. IX

[11] In January 1943, Leir had approached Apex with a new proposal for the manufacture of ferrovanadium (Ex. V-2-C, R. 2524-2526, R. 1194-1196). Apex was not interested (*Id.* at R. 2523-2524, R. 1196-1197).

576, R. 951; Ex. U-4-K, R. Vol. IX 577-578, R. 951-953; Ex. U-4-L, R. Vol. IX 579, R. 953-954; Ex. U-4-M, R. Vol. IX 580, R. 955; Ex. U-4-N, R. Vol. IX 581, R. 957; Ex. U-4-O, R. Vol. IX 582, R. 958). Electromet on June 1, 1943 accepted Continental's check for a lesser amount to terminate the price dispute (Ex. U-4-Q, R. Vol. IX 584, R. 960-961).

Continental, as its vice-president conceded, was able to comply with the terms of its Climax contract (R. 1027-1028). So far as the record shows, Climax also performed.

Petitioners recognize the absence of the proof the Court of Appeals could not find. They therefore now rely on two chance comments in the testimony to take the place of the evidence they should have produced to support the specific allegations of their complaint.

First, they emphasize testimony that petitioners "had likewise lost Climax Corporation, who had done the same thing for us [as Apex], and did not continue because of interference by the defendants with Climax" (R. 978). But this was a patently argumentative conclusion of Continental's vice-president and cannot substitute for evidence of the existence and nature of the negotiations. If such negotiations did occur, they were peculiarly within petitioners' knowledge and should have been properly proved.

Second, they rely on testimony given by the same witness in connection with a letter to Electromet in May 1943—in the course of the price dispute over the April 1943 shipment—expressing a willingness to sign a contract for requirements for the rest of the year (Ex. U-4-M, R. Vol. IX 580, R. 955).

Significantly, there was no claim of any similar offer to VCA. What does not appear in petitioners' summary of the testimony (Br., pp. 106-107), is that Continental had

insisted the price should be $1.10 a pound rather than $1.15, and that Electromet had explained that $1.15 was the regular price on spot, as distinguished from contract, purchases (Ex. U-4-J, R. Vol. IX 576, R. 951; Ex. U-4-L, R. Vol. IX 579, R. 953-954). Continental's answer was an ingenious bargain proposal (Ex. U-4-M, R. Vol. IX 580, R. 955-956):

> ". . . we believe that we can overcome this difficulty in price resulting from the difference between spot and contract sales. We are perfectly willing to sign a contract with you for our requirements until the end of the year . . .
>
> "This contract, at the usual price of $1.10 . . . could then be considered as applying to the lot shipped in April."

Continental did not wait for a reply. Leir had his bank forward a check against the invoice, computed at the $1.10 rate (Ex. U-4-O, R. Vol. IX 582, R. 958). Significantly, too, Continental did not repeat its offer of a requirements contract when Electromet accepted the check, at the $1.10 rate, as payment in full to end the dispute (Ex. U-4-Q, R. Vol. IX 584, R. 960-961).[12] But nothing in the correspondence suggests any negotiations with Climax or the anticipated use of the additional oxide—requested only while bargaining to beat down the price of the prior shipment—for any continued relations with Climax.

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[12] The offer to enter into the requirements contract with Electromet was never rejected, despite petitioners' claim (Pet. Br., p. 59). Exhibit U-4-N (R. Vol. IX 581, R. 957)—which petitioners cite (*Ibid.*)—was admittedly an answer to an earlier letter (R. 957-958).

Indeed, before any reply was received, Continental proposed to Electromet that it would put at its disposal a like amount of oxide out of the production of Nisley & Wilson—"for which we hold a contract with Metals Reserve at $1.10 and which has been allocated to us"—"so that the entire transaction can be written off" (Ex. U-4-P, R. Vol. IX 583, R. 959-960).

Much later petitioners' counsel asked the witness whether he recalled "for which of these contracts"—the Climax contract (for which petitioners had previously obtained their oxide) or the Imperial contract (which was not to be entered into until seven months later)—"you made that demand for the requirement contract" (R. 1018). The witness, erroneously placing the demand in June 1943, could only guess, "June of '43? That would have been probably for Climax, I would say" (R. 1018).

But petitioners never offered evidence of any subsequent "pending negotiations" with Climax, in June 1943 or any other time. Nothing in the record even suggests that Continental ever approached Climax again, much less any details of any negotiations. In short, nothing supports any inference that there were ever any negotiations with Climax that were not fully consummated.

D. The Imperial Paper and Color Arrangement

Finally, petitioners' complaint alleged that in "the spring of 1944, Continental entered into a contract with Imperial Paper and Color Corporation . . . whereby Imperial agreed to process ferro-vanadium and vanadium oxide and Continental agreed to act as sales agent for its entire output, in addition to undertaking to secure the necessary raw materials" (R. 19, par. 35).

The contract was dated January 4, 1944 (Ex. 110, R. 2175-2178, 1014). As in the Apex arrangement, Imperial was to install the equipment necessary to manufacture vanadium products, "including but not limited to vanadium oxide and ferro vanadium" (Ex. 110, R. 2175-2177, pars. 1, 4, 1015). But it was agreed that the contract was "contingent upon the decision of Imperial to manufacture vanadium from other raw materials than chromite and/or to make ferrovanadium" (R. 2178, par. 8). If Imperial decided

"not to enter this new field of production," the agreement was to be "null and void" (*Ibid.*). Continental agreed to act as Imperial's exclusive sales agent on a commission basis and "to cooperate" with Imperial in the potential manufacture of its products (R. 2175). The only additional engagement petitioners undertook was (R. 2175-2176):

> "... to consult with Imperial with reference to the availability of raw material, the metallurgical or chemical processes to be employed, and * * * report to Imperial all changes in market conditions and the development of new sources of supply for raw material etc. both in the domestic and foreign markets."

Thus the Imperial arrangement was not one for the procurement of vanadium oxide as such but of "raw materials," e.g., ores, etc., from which Imperial could manufacture vanadium oxide to be sold or converted by it into ferrovanadium. Imperial, however, never installed the necessary equipment, never produced any ferrovanadium (or any vanadium oxide other than its chromite by-product), and the record permits no dispute about the reasons for its decision. A war-produced labor shortage made operations impossible until at least May 1945 (Ex. U-3-K, R. Vol. IX 561-562, R. 892; Ex. U-3-N, R. Vol. IX 564, R. 899-900; Ex. 114, R. Vol. VIII 185-186, R. 1022-1023). By then the demand for ferrovanadium and vanadium oxide had declined sharply (R. 1530-1531, 1680-1682; Ex. 76, R. Vol. VIII 174-175, R. 762-763; Ex. U-P, R. 407-414; Ex. U-2-B, R. 471-473; Ex. U-2-C, R. 473-476; Ex. U-2-Z, R. 738; Ex. U-3-A, R. 739; Ex. U-3-B, R. 740-741). Imperial had not perfected its process (U-3-N, R. Vol. IX 564, R. 899-900; Ex. 115, R. 2179-2182, 1024).

In December 1944, almost a year after the contract had been executed, Continental asked Imperial for a letter which it could show to Metals Reserve (Ex. U-3-N, R. Vol.

IX 564, R. 899-900). Imperial was to explain that "things have been held up because of the present manpower shortage," but that it intended, as soon as the labor situation changed, "to proceed with the vanadium production on a substantial scale" (Ex. U-3-X, R. 899-900). Imperial declined as it was still unwilling to make any commitment; it feared the letter "might be construed as a representation that would involve an obligation that we do not care to assume" (Ex. 114, R. Vol. VIII 185-186, R. 1022-1023).

As far as the record shows, Imperial never assumed any obligation under the contract with Continental. Petitioners' assertion that as late as 1946 they were still attempting "to manufacture ferrovanadium on a permanent basis with Imperial" (Pet. Br., p. 65) finds no support in the record. There is no evidence at all about 1946 and the brief interchange of 1947 correspondence put in evidence by respondent Union Carbide (Ex. U-3-J, R. Vol. IX 558-561, R. 889) shows Imperial pursuing a reluctant Continental to help find a customer for some vanadium oxide Imperial wished to dispose of.

On this record only one thing is clear: as the Court said below, "The arrangement never got started" (R. 2582).

6. *Petitioners' Claimed Elimination From the Vanadium Industry*

Petitioners' burden was to prove that their four ventures in the vanadium business terminated or failed as a result of acts forbidden by the antitrust laws. In an attempt to sustain that burden, petitioners rely primarily on thirteen "requests for vanadium oxide from respondents" between July 1939 and November 1943 (Pet. Br., p. 59, also pp. 40-43, 51-52, 56-58). They also complain that respondents interfered with their relations with Apex in 1942 and with

Climax and a Canadian customer in 1943 (Pet. Br., pp. 47-48, 52-56). Each of these so-called requests for customers and interferences is discussed in this section, in connection with the period or venture to which petitioners claim it relates.

Petitioners also claim that respondents "interfered with independent oxide suppliers" (Pet. Br., pp. 44-46, 60-63). We submit these claims are immaterial as well as unfounded since the uncontradicted record shows no inadequacy of supplies or any effect on any of petitioners' ventures. But since VCA is charged with the alleged interference with Blanding Mines, and perhaps with some participation in the claimed thwarting of petitioners' plan to erect a ferro-vanadium plant on the Colorado Plateau—a subject raised here for the first time in this litigation—these too are discussed so that there may be no doubt with respect to them (*infra*, pp. 35-37, 43).

A. Apex

Petitioners' complaint alleged that "Apex was unable to operate profitably for the specific reason that it was unable to obtain vanadic acid, and was thus compelled to cease manufacture of ferro-vanadium" (R. 18, par. 33).[13] Their brief suggests "various actions," some "frantically" made and another "desperate," to obtain the oxide to allow Apex to remain in business. But the indisputable evidence—from Apex and Leir himself, as well as the contemporaneous documents—is that Apex throughout its operations had all the oxide it needed and a plentiful additional supply was available to it.

From July 1938 to August or September 1940, before Apex started manufacture, Apex had no immediate need for

[13] Vanadic acid and vanadium oxide are used interchangeably (R. 1063-1064).

oxide. Stockpiling then for future operations struck Leir as "irrational," although "we could have done it" (R. 1233). Supplies were available, but the export demand perhaps too attractive. Until July 1940, when the embargo ban became effective, Leir simply exported the bulk of the substantial quantities of vanadium he purchased (R. 1233-1234). Four of the thirteen "requests for vanadium oxide from respondents," on which petitioners rely, predated the export embargo and Apex's first production and fell in the period in which Leir was reselling oxide to others. Manifestly they could not have affected Apex or denied it supplies for its operations.

When Apex started manufacture in August or September 1940, it was being supplied by two different sources (R. 1124-1125). Even then there was no decision to stockpile. As Leir put it, they could keep the raw material for Apex's use or "ship it in other directions" (R. 1125). In August 1940 Apex expected 20,000 pounds from one of these suppliers during the next two months (Ex. V-1-J, R. 2498-2500, 1127). Leir recommended the 20,000 pounds be resold "because there is a production of about 10,000 lbs. every month from Rifle and two new productions which will open very shortly in Arizona and Los Angeles" (*Id.* at 2499). Perhaps he was affected by the three per cent commission which he thought he "definitely had a right to," although he later agreed to return it to Apex (R. 1129, 1131-1132). At the trial Leir conceded the resale was "an error in judgment" (R. 1130-1131).

At that time, Leir said at the trial, he "was not concerned" about getting regular supplies of vanadium oxide (R. 1237). Perhaps too he had to accommodate himself to Apex's policy against stockpiling and long term contracts —to limit its purchases "approximately to what we had

definitely sold for the future" (R. 1275, 1353). With Leir's confidence and Apex's policy, Continental continued to resell oxide to other customers—over 28,000 pounds between September and December 1940 and another 1,800 pounds in early 1941 (Ex. U-5-N, R. Vol. IX 591-601, R. 1236-1237). Again Electromet's so-called refusal of oxide in October 1940—apparently a broad interpretation of an Electromet representative's statement when he was in Apex's office (Pet. Br., p. 59; Ex. 128, R. Vol. VIII 189-190, R. 1240)—could not have affected Apex's manufacturing operations.

Moreover, in the year that followed Apex's first production, it refused four separate opportunities to make commitments which would have provided it much greater supplies of oxide on a sustained basis—(1) from Blanding Mines, which was then supplying it with a lesser amount monthly, in the Fall of 1940 (Ex. V-2-I, R. 1698-1700; R. 1153, 1700); (2) from the Morrison mill in December 1940 (Ex. V-1-K, R. 2501, 1133; Ex. V-1-O, R. 1140-1142); (3) from the new operator of the Morrison mill in the Spring of 1941 (Ex. V-1-P, R. 1142-1145); and (4) from the National Vanadium Company in September 1941 (Ex. V-1-Q, R. 2507-2513, 1145; Ex. V-1-R, R. 2514-2515, 1150-1153).

Even these decisions—for which respondents are in no way responsible—are difficult to question. Throughout the period Apex had a regular supplier in Shattuck (North Continent Mines) which had "far more ore than the Vanadium Corporation did" (R. 509)—from which it received very substantial shipments (Ex. 118, R. 2210, 1066; Ex. V-1-S, R. 1154-1157; R. 1066-1068). It had other suppliers as well (*Ibid.*). And during the remainder of the Apex operation—including the January 1941-January 1942 period which petitioners now call the "critical period" (Pet. Br., p. 102)—only once did petitioners make a direct request for oxide of any respondent and then never followed up

when they received no answer.[14] The other so-called requests, all in June or July 1941, were either not for oxide or not to any of the respondents.[15]

"From October to December, 1941," according to their brief, "petitioners frantically attempted to obtain oxide" (Pet. Br., p. 102). But they did not request any from any respondent. Moreover, the record clearly shows, Apex had enough oxide to fill all outstanding orders in October 1941, when the fire in its ferro department brought about its notice to Leir that it wished to discontinue operations (Ex.

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[14] Petitioners produced a short letter to Electromet dated June 14, 1941, which was merely a request for an "offer" of an unspecified quantity of vanadic acid (Ex. 77, R. Vol. VIII 176, R. 776). Electromet evidently could not find it in its files (R. 776), and no answer was produced. Nor do petitioners—although now said to have been desperate (Pet. Br., p. 103)—appear to have done anything to follow up when no response was received.

[15] The two other requests in June 1941 were that petitioners be allowed to convert VCA and Electromet oxide for their account—not that they be sold oxide (Ex. 77, R. Vol. VIII 176, R. 776; Ex. 132, R. 2261-2263, 1245). VCA, of course, had ample facilities for converting its own oxide and replied that it was not interested (Ex. 132, R. 2261-2263, 1245; R. 1971). Electromet replied that it was "at the moment able to smelt all the vanadic acid which we have available" (Ex. 77, R. Vol. VIII 176, R. 776). Certainly these requests do not suggest that Apex did not have sufficient oxide for its own manufacturing needs.

On July 16, 1941, petitioners claim, they asked for oxide from VCA and Electromet through the Vanadium Section of OPM (Pet. Br., p. 59). Their request was not offered in evidence and nothing in the record suggests any reason for it. For all that appears, the request was not even for Apex. OPM's reply stated simply that it had been informed by VCA and USV "that they have no vanadic acid for disposal since they are themselves using all of the acid they produce either in their production of ferro-vanadium or to supply their own customers using vanadium for defense and essential purposes" (Ex. 132, R. 2265, 1245).

Nothing in the record suggests that the facts were not in all respects as stated to OPM. Indeed, Continental conceded that respondents did use their oxide in the manufacture of ferro-vanadium for steel and that it was "not necessarily" good business for some one to sell oxide he produced if he needed it in his own manufacture of ferrovanadium (R. 869-870).

V-1-S, R. 1155-1157, 1154). Apex then pointed out that Shattuck had been shipping 12,000 to 18,000 pounds of oxide "to us every couple of weeks" (*Id.* at 1157). It even suggested that all suppliers, including Shattuck, be notified immediately to discontinue shipments until further notice (*Id.* at 1157). By the end of 1941 Apex had 45,827 pounds of oxide on hand; in the first half of 1942, when it resumed operations, it purchased another 82,892 pounds (Ex. 143, R. 1306-1307; Ex. 118, R. 2210, 1066).

In February 1942, having repeated its decision to discontinue ferrovanadium operations, Apex notified Shattuck (North Continent Mines) to discontinue shipments until further notice (Ex. V-2-E, R. 1284). It then had about 50,000 pounds of oxide on hand (R. 1331, 1342). This was enough to fill all existing orders (R. 1361). And Leir conceded that Apex at that time was able to get additional supplies (R. 1175).[16]

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[16] Leir had persuaded Apex to sign a letter he had written, dated December 13, 1941, to the Defense Plant Corporation for oxide from the Monticello plant to be erected (Pet. Br., pp. 102-103).

The letter claimed Apex's plant for the production of ferro-alloys had been built in 1930 and could not make use of all its production facilities "due to the lack of raw material" (Ex. 144, R. 2266, 1313). Of course, Apex had started ferro alloy production in 1940—not 1930—and had only recently solved its production difficulties (R. 1351). Moreover, Apex then had almost 50,000 pounds of oxide on hand and was not even in production because it was rebuilding the plant which had been destroyed in the fire (Ex. 143, R. 1306-1307; R. 1358). Clearly Apex then had no shortage of raw materials and, as its officer testified, the correspondence referred to some "future operations" and "distant date" (R. 1358).

By February 16, 1942, there may have been "assurances," as Leir argued to Apex, which would "facilitate our obtaining part of the new output" of the new Government Monticello plant (Ex. V-2-A, R. Vol. IX, 603, R. 1176; Pet. Br., 104-105). But Apex had already decided to discontinue operations. Raw materials never having been its problem, there was no reason to change its mind.

By mid-1942 all its obligations to Continental had been fulfilled and Apex was finished with the ferrovanadium business (*supra*, pp. 19-20). Continental arranged with North Continent Mines to take over the purchase of its production which had formerly gone to Apex (Ex. U-3 Q, R. 2446-2447; R. 911-915).

Perhaps Leir, sensing the results of Pearl Harbor, wanted Apex to accumulate oxide. But Apex itself—whose business is alleged to have terminated because of an inability to obtain oxide—clearly could get all it wanted.[17] There is not a shred of evidence that Apex or Continental lost a single sale because it could not get oxide. And at the trial, an Apex officer three times confirmed what was indisputable from the record—very simply, an inability to secure oxide "wasn't the reason for closing" the ferrovanadium business (R. 1287; see also R. 1290, 1361-1362).

Sensing the weakness of their claim of shortage of oxide, petitioners attempted to pat the blame on VCA for Apex's decision to go out of the vanadium business (Pet. Br., pp. 47-48). This charge is as unfounded as the alleged oxide shortage. There is no question that an Apex vice-president in charge of sales first approached VCA and not vice versa. It was "the normal thing" for him "to contact somebody in reference to disposing of the equipment after we made a decision to go out of business" (R. 1286). He advised VCA of Apex's decision and that Apex had some equipment and a small stock of oxide on hand it would like to dispose of,

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[17] If there were "some short periods" when Apex did not have a sufficient supply of oxide coming in, it was concededly the result of its own policies (R. 1274-1277).

It would not stockpile—not even one month's supply (R. 1274-1275, 1277). It would not finance or help finance oxide mills and turned down several requests for such assistance from suppliers (R. 1275-1276). Its policy was not to enter into contracts to take a fixed quantity of oxide over an extended period, and it refused several requests for such contracts (R. 1276).

if VCA was interested (Ex. 62, R. Vol. VIII 163, R. 671). Apex was to supply further details and VCA a few weeks later, not having heard from Apex, followed up with a telephone call (Ex. 62, R. Vol. VIII 167, R. 671, 673). Apex then reported legal difficulties with Leir and its counsel's advice to make the most satisfactory arrangements it could with him (Ex. 62, R. Vol. VIII 167, R. 671, 673; Ex. V-1-W, R. 1167-1170; 1343).

Apex agreed to a short extension of operations (*supra*, p. 20). Then it offered Continental the opportunity to acquire its equipment (R. 1337). Continental did not buy it and could not even sell it for Apex, so that it had to be abandoned except for a supply of magnesite eventually sold to VCA (R. 1337). Clearly, neither these facts nor VCA's purchase of "very small quantities" of dioxidizing ingots sold by Apex (R. 1336-1337) afford any basis for an inference that Apex's decision to go out of the vanadium business was the result of "an agreement" with VCA, as petitioners assert (Pet. Br., p. 47).

No more support can be found for petitioners' claim that VCA "usurped" the Blanding Mine oxide production from Apex in early 1942 or for their insinuation that this was also in some way responsible for Apex's decision to discontinue operations (Pet. Br., pp. 34, 45-46).

In the first place, shipments from Blanding had stopped, as petitioners concede, in January 1941 (Pet. Br., p. 44)—or about a year before the Apex termination. Blanding had shut down its plant for certain improvements (R. 1703; Ex. 131, R. 2234-2235, 1242). But Blanding did not renew dealings with Apex when it resumed production in October 1941; Apex's price offer was "below other offers which we [Blanding] have received" (Ex. 131, R. 2235-2236, 1242).

Nor is there any basis for the inference that Blanding's inability to deal with Apex on January 9, 1942—even without regard to the fact that on January 14, 1942 it opened the door to future dealings with petitioners (Ex. 131, R. 2240-2241)—contributed to Apex's renewal on January 27, 1942 of its earlier decision to discontinue vanadium operations. Apex had made its reasons for discontinuing perfectly clear and they did not include the lack of Blanding or any other oxide suppliers (Ex. V-1-Y, R. 2519, 1173-1174). Indisputably Apex then had adequate supplies from Shattuck (North Continent Mines) and other suppliers with whom it had continuing current dealings—and even Leir admitted it could obtain additional supplies (*supra*, pp. 32-34).

B. Van-Ex

Here the complaint alleged that (1) Continental's business in Canada was effectively eliminated by respondents, and (2) "in 1944, Continental discontinued shipping from its Long Island location because the difficulty of securing raw materials rendered it commercially impossible to operate profitably" (R. 18, par. 34).

The Canadian issue is essentially a legal question and is discussed under Question 3. Worth noting here, however, is the basic inconsistency of petitioners' position. As the Court of Appeals pointed out (R. 2577):

> "It seems obvious that, if lack of supplies was really the cause of Continental's undoing with regard to Van-Ex, the loss of Atlas [a Canadian concern] as a customer would become irrelevant, for the absence of customers cannot hurt a seller who has nothing to sell. On the other hand, if the defection of Atlas was the cause of Van-Ex's demise, the alleged lack of supplies could have had no relevance, for an abundance of goods is of no use to a seller who lacks customers."

The entire record on Van-Ex is singularly sparse. But it is clear that petitioners' further claim that Van-Ex, like Apex, suffered from difficulty in securing raw materials, has nothing to support it.

The record does show that Apex, when it discontinued its Van-Ex packaging on July 1, 1942, transferred its oxide stocks and the North Continent Mines source to Continental (*supra*, p. 35). Shipments to Continental continued in 1942 and through April 1943 (Ex. 118, R. 2203, 1066). It also received 4,000 pounds from the Nisley & Wilson mill in late 1942 (Ex. U-3-W, R. 923-924). There is no suggestion that these supplies were inadequate.

In January 1943, Leir proposed a new ferrovanadium venture to Apex and the discontinuance of the Van-Ex business (*supra*, p. 24 note; Ex. V-2-C, R. 2524, 1194-1196). There was no question of any shortage of raw materials (R. 1196):

> "Q. Well, now, Mr. Leir, then in January of '43 you had assurance of ample supplies of vanadic acid, is that correct? A. Yes."

In April 1943 Continental obtained 20,000 pounds of oxide which it used for its February 1943 contract with Climax for the manufacture of ferrovanadium (*supra*, p. 24). In May 1943 it had a contract with Metals Reserve for at least 20,000 pounds of oxide out of Nisley & Wilson production (Ex. U-4-P, R. Vol. IX, 583, R. 959-960).

Petitioners never offered evidence which would clearly define the Van-Ex period, and the only inference is that they had lost interest by April or May 1943. The oxide Continental received in April 1943 went to Climax, not Van-Ex (*supra*, p. 24). If Continental "needed only a small pebble mill to make Van-Ex"—as petitioners now state (Pet. Br., p. 49)—the pebble mill was sold in May 1943 (*supra*, p. 23).

Its May 21, 1943 request for oxide from Electromet—its first request of any respondent in almost two years (Pet. Br., p. 39)—was evidently not for Van-Ex, if in fact it had any purpose other than as a palpable ploy in a price dispute (*supra*, pp. 25-26). In any event, petitioners' counsel at the trial suggested only that the requested oxide was for either Climax or Imperial—not Van-Ex—and Continental's vice-president guessed it would have been for Climax (*supra*, p. 27).

It is therefore unnecessary to answer in detail petitioners' varied disagreements with the Court of Appeals' disposition of the claim of oxide shortage during the Van-Ex period (Pet. Br., pp. 109-110). Whether or not the Nisley & Wilson mill was shut down from October 1942 to April 1943, as petitioners assert, is immaterial if there is no proof in the record that petitioners' inventory and its supplies from other sources were insufficient. For the same reason, it is immaterial that Metals Reserve Company in March 1943 "turned down petitioners' request for oxide" (Pet. Br., p. 109)—although petitioners in fairness might have added that the request was filled the very next month, half of the material coming from Electromet, and that the request was for Climax ferrovanadium and not Van-Ex (*supra*, p. 24).

In short, whatever Van-Ex was, however long it lasted and whatever the reasons for its disappearance—and petitioners' proof is obscure on all these points—there is nothing in the record to support petitioners' claim that Van-Ex was discontinued because of difficulty in securing raw materials (R. 18, par. 34).

C. Climax

The complaint alleged that "M. D. Arrouet, an official of one of the defendants"—subsequently identified as Elec-

tromet (R. 814)—in June 1943 "informed Continental that it should desist from attempting to conclude pending negotiations for an arrangement with Climax Molybdenum Corporation to manufacture vanadium for Continental's account" and "threatened that if Climax undertook the manufacture of ferro-vanadium for Continental, the defendants would enter the molybdenum industry as a reprisal against Climax" (R. 21, par. 38).

The simple answer is that the record contains nothing about these alleged pending negotiations (*supra*, pp. 24-27). Not one witness or a single piece of paper even suggests that the threats were ever carried out or that the reprisals were ever taken. Nor is there any evidence to support an inference that either Continental or Climax terminated the alleged pending negotiations—whatever they might have been—because of anything said or done by the Union Carbide employee.

As the Court of Appeals necessarily concluded, respondents "have thus failed to show any injury resulting from the alleged threats." Plainly, no jury could conclude that petitioners were injured in their business by the disruption of negotiations when it is never told what the negotiations were or anything about what is supposed to have happened to them.[18]

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[18] We leave to Union Carbide's brief the question whether Arrouet was authorized to act for it.

We submit, however, that he could not bind VCA. Moreover, petitioners' offer of proof nowhere suggests that VCA knew anything of any negotiations with Climax, cared anything about them, or had authorized any reprisals against Climax. Nor did the offer of proof represent that anything Union Carbide or any affiliate had threatened it might do or had done was in furtherance of any conspiracy with VCA (Pet. Br., pp. 52-54).

D. Imperial

Finally, petitioners' complaint alleged, with respect to the Imperial contract—"At the end of the year 1944, Imperial was compelled to abandon the contract . . . because of the inability of Imperial or Continental to secure vanadium oxide or vanadium-bearing ores" (R. 19, par. 35).

Petitioners then referred to vanadium-bearing ores as well as vanadium oxide. But Imperial patently had not been willing to make the necessary investment for an assured supply of ore (Ex. 114, R. Vol. VIII 185-186, R. 1022-1023). Nor is there any evidence that Continental had developed any taste for mining or milling on the Plateau. Indeed, all the assets of North Continent Mines were available until August 1944; Leir investigated the possibility but never made an offer (Ex. U-5-1, R. Vol. IX, 586-588; R. 1205, 1207-1208).

Petitioners now refer to vanadium oxide rather than vanadium-bearing ores (Pet. Br., 56-58, 108-109). They argue that petitioners' November 1943 "requests for supplies"—actually a request for an offer of 10,000 to 15,000 pounds a month "for a fixed length of time" (Ex. 42, R. Vol. VIII, 156, R. 271)—"were for the specific purpose of supplying Imperial" (Pet. Br., p. 108). But, despite the alleged refusals, Continental in January 1944 nonetheless proceeded to enter into its contract with Imperial (*supra*, pp. 27-29). Nor did petitioners ever make any subsequent request of VCA, despite its reply to the "request for supplies" on November 19, 1943—in which VCA had explained that, because of its present commitments, it was "not in the position to take on this additional tonnage at the present time" (Ex. 41, R. Vol. VIII, 154, R. 269). It then added (*Id.* at 272):

> "Perhaps if you are still interested at a later date and our situation changes, we will be glad to look into the matter further at that time." [19]

In January 1944 Continental could enter into a contract with Imperial, and thereafter through the life of the contract make no request of respondents, only because it knew that oxide was plentiful (*supra*, pp. 8, 23). Petitioners themselves have emphasized that vanadium oxide then "was in over supply" (Pet. Br., p. 56). Many opportunities to obtain a regular supply were spread on the record. Illustrative perhaps are the 50,000 pounds of oxide available to Continental in January 1944 (Ex. U-4-B, R. 936-937). Then in March 1944 Blanding, which had supplied oxide to Continental in a prior period, reported it had an output of 15,000 pounds a month which it would expand to 50,000 pounds per month if Continental would provide financial assistance, but Continental declined; it then offered to sell its entire output up to 20,000 pounds per month for a period of nine months, which was also declined; and finally offered to sell an existing stock of 12,000 pounds of oxide, which was similarly declined (Ex. V-2-K, R. 2533-2553, 1715-1719; Ex. V-2-L, R. 2554, 1715-1726).

There may be many explanations of the termination of the Imperial contract (*supra*, pp. 27-29). But the explanation cannot be found in either a non-existent inability to obtain oxide or any act of any respondent.

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[19] Petitioners argue that their requests to VCA and Electromet in November 1943 "were jointly refused" (Pet. Br., p. 57). Actually, there were separate and different replies on different dates (Ex. 41, Vol. VIII, 154, R. 270; Ex. 42, R. Vol. VIII, 156, R. 271).

Petitioners similarly argue that "Burwell testified that Electromet did not sell oxide to Mr. Leir at this very time because respondents wanted 'to keep him out of the vanadium business'" (Pet. Br., p. 58). Burwell had been asked only about the request to his company and at most was testifying about the reasons he thought his company had; nothing suggests that he knew anything of the request of VCA or anything of the reasons for its reply (R. 546-547).

It is evidently at one point in this same Imperial perio that respondents are supposed to have "thwarted pet tioners' plan" to erect a ferrovanadium plant on the Col rado Plateau (Pet. Br., p. 61). The only record mention such a "plan"—and the only reference cited by petitione —is in part of a VCA exhibit introduced to show the avai ability of Blanding oxide and petitioners' refusal to take (Ex. V-2-K, R. 2533-2544, 1715).

The exhibit petitioners cite itself shows the nature of th "plan". What petitioners now rely on as an undertakin by Continental "to construct a plant" (Pet. Br., p. 61) ap pears in a sentence in a draft agreement Leir sent Blandin in March 1944 (Ex. V-2-K, R. 2537-2543, 1715). The so called undertaking was expressly conditioned on Blanding production of 50,000 pounds of oxide a month and it was als to "be apparent that such production can be maintaine over a reasonable period thereafter" (*Id.* at 2541-2542)— production Blanding itself said it could not attain witho further financial assistance (*Id.* at 2545). Moreover, Leir draft agreement contained merely an undertaking by Con tinental "to receive delivery" of Blanding's entire outpu "as the same shall or may be specified for delivery fro time to time by Continental" (*Id.* at 2538). Blanding note that throughout Leir's draft "Continental 'undertakes,' an in most instances, Blanding 'agrees' "; it insisted that Con tinental agree to take the entire output, subject to thre or six months notice (*Id.* at 2544-2545). Continenta promptly refused (*Id.* at 2550-2551).

In short, Continental was unwilling either to suppl financial assistance or commit itself to take deliveries, an Blanding was unwilling to obtain financing elsewhere with out a commitment from petitioners (*Id.* at 2544-2551). Th reason for the end of the "plan" to construct a plant—whic petitioners assert here for the first time in this litigation— is clear and uncontradicted.

Summary of Argument

Set forth above are the material details of the proof relating to petitioners' ventures in the vanadium business and to the reasons they assign for the termination of these ventures.

In both courts below respondents contended the record could not sustain a finding for petitioners. The question became moot in the trial court when the jury returned a general verdict for respondents. It became determinative in the Court of Appeals which concerned itself only with the question whether there was sufficient proof of "a causal connection" between the respondents' alleged wrongdoing and petitioners' alleged loss, without consideration of the unrelated errors petitioners had specified (R. 2572). And the Court of Appeals, finding the proof of this causal connection insufficient, affirmed the judgment entered for respondents on the jury verdict (R. 2572-2573, 2583).

The limited questions presented here, simply stated, are (1) whether proof of such causal connection, or fact of damage to petitioners' business, is necessary, (2) whether petitioners' proof was sufficient, and (3) whether petitioners' alleged loss of sales by the concededly valid acts of the Canadian Government were admissible for the purpose of proving such fact of damage.

When these questions are viewed against the record, without the distortions and insinuations petitioners have included in the questions presented for certiorari, it becomes abundantly clear that the Court of Appeals applied only well-settled rules, that its decision in no way conflicts with applicable decisions of this Court or of any Court of Appeals and involves no question of law which has not long been settled by this Court, and that what petitioners

propose here are new principles without support in precedent, reason or policy.

1. The requirement that a plaintiff in a treble damage action prove that he was in fact injured by the alleged violation of the antitrust laws—whether expressed as causal connection or relation, fact of damage or proximate result—has long been settled. It is a requirement which distinguishes the private action from the Government action. It is dictated by the statute which gave petitioners their right of action. It was early established in this Court and most recently reaffirmed in *Bigelow* v. *RKO Radio Pictures, Inc.*, 327 U. S. 251 (1946). It has been uniformly imposed by the lower courts.

Without such proof, principle clearly requires and the courts have uniformly held, dismissal of petitioners' complaint was mandatory.

The case was brought and tried with full recognition of this additional burden on the private suitor. Now, however, because of their failure of proof and on the basis of a distortion of *Bigelow*, petitioners propose an abandonment of the requirement of the statute and the creation of an inference of causal connection merely from the assumed fact of antitrust violation. A treble damage plaintiff, on petitioners' theory, recovers whenever he can show an antitrust violation and that his business failed, whatever the reasons for his failure.

2. Petitioners were not "deprived of a trial by jury," as petitioners suggest in Question 3 (Pet. Br., p. 5). Nor is there any conflict, direct or otherwise, with *Beacon Theatres, Inc.* v. *Westover*, 359 U. S. 550 (1959), as petitioners there also represented to the Court (*Ibid.*). Significantly, petitioners cite but never discuss *Beacon Theatres* (Pet. Br., pp. 71, 92, 93). There the courts below had denied

petitioners' request for a jury trial of the factual issues in the case (359 U. S. at 501, 503-504). Here petitioners had a jury trial.

No one disputes the constitutional right to a jury trial. Similarly, no one can now dispute, under the settled rules of this Court, the right and duty of a court to review the record to determine whether the evidence is sufficient to sustain a verdict for plaintiff and to direct a verdict for defendant when the evidence is insufficient. However the quantum and quality of the necessary proof be expressed, manifestly the judgment for respondents here must be affirmed in the absence of evidence to sustain a rational, honest and reasonable finding in petitioners' favor with respect to an essential element of their cause of action.

3. The final question relates to the exclusion of evidence relating to petitioners' alleged loss of a Canadian customer as a result of acts in Canada by a Canadian subsidiary of Union Carbide, concededly acting as the agent of the Canadian Government for the wartime purchase and allocation of vanadium for Canadian steel firms.

Basic and settled questions of policy are involved. The issue here is not whether the Union Carbide Canadian subsidiary was directed or instigated by corporate affiliates in this country or whether they in fact had anything to do with petitioners' loss of the Canadian customer; we necessarily assume *arguendo* everything petitioners asserted in their offer of proof. Nor is the issue now whether such activities in this country could be evidence to support a charge of conspiracy or intent to monopolize or would be admissible in a Government action; we necessarily assume too, because of the questions on which certiorari was granted, that the other evidence in the record was sufficient to sustain a finding of violation of the statute.

The sole issue now is whether petitioners can establish the fact of damage or injury to them by proof of the act of the Canadian Government, and recover damages for the loss allegedly suffered as a result of such act—an issue which inevitably brings into dispute the reasons why that Government acted as it did and whether it was in fact in any way affected by the claimed persuasion or instigation of the alleged conspirators. Both courts below recognized that that issue necessarily involved a determination with respect to the acts of a sovereign power and was not within the purview of the Sherman Act.

We submit the result below was clearly dictated by established principles of comity, sovereign immunity and the extraterritorial limitations of the antitrust laws settled by this Court in *American Banana Co.* v. *United Fruit Company*, 213 U. S. 347 (1919), reaffirmed with respect to foreign sovereigns as recently as *Steele* v. *Bulova Watch Co., Inc.*, 344 U. S. 280, 288 (1952), and for similar considerations recently applied to valid governmental action in this country in *Eastern Railroad Presidents Conference* v. *Noerr Motor Freight, Inc.*, 365 U. S. 127 (1961).

ARGUMENT

QUESTION 1

Proof of a causal connection between respondents' alleged antitrust violations and the alleged failure of petitioners' vanadium business ventures was an essential element of petitioners' cause of action. Without such proof there was no issue for the jury.

Section 4 of the Clayton Act grants a right of action to anyone "injured in his business or property by reason of anything forbidden in the antitrust laws." 15 U. S. C. §15. "As the statutory language suggests, recovery under section 4 of the Clayton Act, as under its predecessor, §7 of the Sherman Act, . . . 'cannot be had unless it is shown, that, as a result of defendants' acts, damages in some amount susceptible of expression in figures resulted,' Keogh v. Chicago & N. W. Ry. Co., 260 U. S. 156, 165 (1922)." *Herman Schwabe, Inc.* v. *United Shoe Machinery Corp.*, 297 F. 2d 906, 909 (2 Cir. 1962).

Petitioners' complaint therefore alleged that their elimination from the vanadium industry had been "proximately caused" by respondents' alleged violations of the Sherman Act (R. 16, par. 30; R. 23, par. 45). Consistently, their proposed instructions to the jury recognized that a plaintiff, to recover in a private action, must establish not only acts in violation of the statute but also "that these acts had a proximate impact on his business or trade which caused injury to it" (R. 57, No. 14). Consistently, too, the trial court charged the jury, without objection, that petitioners had to prove that the allegedly unlawful acts "injured them and were the direct, immediate and proximate cause of such injury" (R. 2026).

Thus there was agreement below that petitioners' burden included proof of causal connection between respondents' alleged violation of law and their injury. And the Court of Appeals included such causal connection as one of the three essential elements of a private action (R. 2572):

> "(1) That the defendant has violated the antitrust laws; (2) that plaintiff has suffered an injury to his business or property susceptible of being described with some degree of certainty in terms of money damages; and (3) that a causal connection exists between the defendant's wrongdoing and the plaintiff's loss."

The Court of Appeals then concluded, assuming *arguendo* the sufficiency of the evidence to support the first two elements of their cause of action, that petitioners' evidence was nonetheless "insufficient to justify a jury verdict that this necessary causal relation existed" (R. 2572-2573).

Question 1, as framed by petitioners in their petition for certiorari, proposed an unsupported and extreme proposition of law (Pet. Br., p. 4). Simply stated, petitioners' position is that causal relation may be inferred by the jury, without further proof, where the "question of violation is confessed," "measurement of damages is more than sufficiently supported by relevant economic data," and "the destruction of the plaintiff" can be found to have been "an important goal" of the respondents. In short, petitioners seem to contend in their first legal argument (Pet. Br., pp. 74-90), a jury may find for a plaintiff without proof that the alleged purpose and intention to eliminate him was actually effected by the defendant and whether or not his elimination or withdrawal resulted from circumstances completely unrelated to anything done by the defendant. That is the contention answered in this section of this brief.

Petitioners' argument, however, sometimes obscures the nature of the extreme proposition they are urging in Question 1. For instance, they state in the course of their argument that "causation is proved upon the showing of impact or contact" (Pet. Br., pp. 74-75). There are still other references to alleged "contact" or "impact" on petitioners (*e.g.*, Pet. Br., pp. 70, 76, 78). Later petitioners find it "undeniable" that respondents' conduct "had a direct, immediate and injurious impact on petitioners, who were, as a result of these activities, unable to remain in the vanadium industry" (*Id.* at 79-80). If petitioners thereby intend to concede the necessity of proof of causal connection, there is no dispute except with respect to the sufficiency of their proof to support a jury verdict. That is a separate issue, presented by Question 2 and discussed below (pp. 61-70).

A. It Has Been Consistently Held That a Plaintiff in a Private Action Must Prove a Causal Connection Between His Losses and Defendant's Antitrust Violations.

Petitioners' allegations of proximate cause were dictated by well-settled rules. "In a private antitrust suit, the plaintiff must not only allege a violation of the antitrust laws, but damage to the plaintiff proximately resulting from the acts and conduct which constitute the violation." *Karseal Corporation* v. *Richfield Oil Corporation*, 221 F. 2d 358, 362 (9 Cir. 1955). In accord, *e.g.*, *Association of Western Railways* v. *Riss & Company, Inc.*, —— F. 2d ——, CCH 1962 Trade Cases ¶70,204, p. 75,751 (D. C. Cir. January 25, 1962).

Such allegations, of course, must be proved. It is not enough that a plaintiff prove that "a defendant has injured its competitors generally . . . in the absence of evi-

dence that would justify a finding of injury to the particular plaintiff." *Herman Schwabe, Inc.* v. *United Shoe Machinery Corp.*, 297 F. 2d 906, 909-910 (2 Cir. 1962). "The courts have held uniformly that it is a prerequisite to the maintenance of an action under the antitrust laws by a private suitor that the plaintiff prove that he was damaged as a direct result of defendant's violation of the Sherman Act." *Sperry Products Inc.* v. *Aluminum Company of America*, 171 F. Supp. 901, 938 (N. D. Ohio 1959), affd. on this issue 285 F. 2d 911, 927 (6 Cir. 1960), cert. denied 368 U. S. 890 (1961). And proof of loss of profits does not itself "establish that such loss was a proximate result" of the allegedly unlawful acts. *Talon, Inc.* v. *Union Slide Fastener, Inc.*, 266 F. 2d 731, 737-738 (9 Cir. 1959).

However the essential elements of the private action be expressed, one is proof of the "causal connection" or "causative relation" between defendant's wrongful act and plaintiff's loss, referred to by the court below and in a myriad of other cases. *E.g., Momand* v. *Universal Film Exchanges, Inc.*, 172 F. 2d 37, 43 (1 Cir. 1948), cert. denied 336 U. S. 967 (1949), reh. denied 337 U. S. 934, 961 (1949); *Royster Drive-In Theatres, Inc.* v. *American Broadcasting-Paramount Theatres, Inc.*, 268 F. 2d 246, 250 (2 Cir. 1959), cert denied 361 U. S. 885 (1959); *Monticello Tobacco Co.* v. *The American Tobacco Co.*, 197 F. 2d 629, 633 (2 Cir. 1952), cert. denied 344 U. S. 875 (1952); *E. V. Prentice Machinery Co.* v. *Associated Plywood Mills, Inc.*, 252 F. 2d 473, 477 (9 Cir. 1958), cert. denied 356 U. S. 951 (1958); *The Flintkote Company* v. *Lastfogel*, 246 F. 2d 368, 392 (9 Cir. 1957), cert. denied 355 U. S. 835 (1957); *Atlas Building Products Co.* v. *Diamond Block & Gravel Co.*, 269 F. 2d 950, 958 (10 Cir. 1959), cert. denied 363 U. S. 843 (1960).

This insistence on proof of causal connection, of course, necessarily follows from the basic difference between a pri-

vate and public action under the antitrust laws. The Government action protects the public generally. The private action was intended to give additional protection to "the victims of the forbidden practices." *Radovich* v. *National Football League*, 352 U. S. 445, 454 (1957). Thus a "private person has no right to complain of a violation of §1 or §2, as such, nor does such a violation per se give rise to a private cause of action. . . . It is only when a violation of §1 or §2 causes *damage* that a cause of action inures to private benefit and then only to the extent of the trebled amount of such damage. Consequently, forbidden acts cannot be relevant unless they *cause* private damage." *Wolfe* v. *National Lead Co.*, 15 F. R. D. 61, 63 (N. D. Cal. 1953), affd. 225 F. 2d 427 (9 Cir. 1955), cert. denied 350 U. S. 915 (1955); *Hunter Douglas Corporation* v. *Lando Products*, 235 F. 2d 631, 638 (9 Cir. 1956).

Causal connection here is the *fact* of damage. Indisputably, under the general rule, "[c]ertainty in the fact of damage is essential." *Palmer* v. *Connecticut Railway & Lighting Company*, 311 U. S. 544, 561 (1941). To be sure, there need not be absolute certainty. But there must be proof that comes to more than speculation, surmise or conjecture (*infra*, pp. 64-65)—whether it be expressed as proof to a "reasonable certainty," as in *Atlas Building Products Co.* v. *Diamond Block & Gravel Co.*, 269 F. 2d 950, 958 (10 Cir. 1959), cert. denied 363 U. S. 843 (1960); or to a "reasonable probability," as in *E. V. Prentice Machinery Co.* v. *Associated Plywood Mills, Inc.*, 252 F. 2d 473, 477 (9 Cir. 1958), cert. denied 356 U. S. 951 (1958); or to a "fair degree of certainty," as in *Momand* v. *Universal Film Exchanges, Inc.*, 172 F. 2d 37, 43 (1 Cir. 1948), cert. denied 336 U. S. 967 (1949), reh. denied 337 U. S. 934, 961 (1949).

Nor is petitioners' burden met by the testimony which, they repeatedly claim, shows that it was the "specific inten-

tion" of respondents "to eliminate these petitioners from the vanadium industry" (Pet. Br., p. 68; see also pp. 69, 70, 78, 79).[20] Inherent in every conspiracy to monopolize is a purpose or intent to exclude or eliminate competition. The competitor claiming treble damages must nonetheless prove that he was excluded or eliminated as a result of the conspiracy. A "finding that the conspiracy [has] not damaged the plaintiff [is] therefore a finding that the plaintiff [has] not proved its claim." *Association of Western Railways* v. *Riss & Co., Inc.*, —— F. 2d ——, CCH 1962 Trade Cases ¶75,204, p. 75,751 (D. C. Cir. Jan. 25, 1962). The rule for which petitioners contend would simply abolish the need for proof of causal connection wherever an intent to monopolize has been alleged.[21]

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[20] In their legal argument, as in their statement of the case, petitioners persist in their use of the collective "respondents." Thus they state, without record citation—"Respondents' officers testified they intended to harm petitioners" (Pet. Br., p. 90).

Petitioners can mean only the testimony of Blair Burwell, a former vice-president of one of the Union Carbide subsidiaries, who testified about his company's refusal to sell petitioners in November 1943 and in no way attempted to implicate VCA in this alleged refusal to sell (*supra*, p. 42 note). Certainly no other officer of any respondent testified to any such intent.

[21] Petitioners attempt to buttress their contention with a "legal presumption" that "a conspiracy to eliminate competition continues until it succeeds" (Pet. Br., p. 85). It may be presumed on a special plea of the statute of limitations, as in *United States* v. *Kissel*, 218 U. S. 601 (1910), that conspiracies are continuing offenses.

But nothing in that opinion stands for the proposition that all conspiracies necessarily continue or are necessarily successful, or excludes the possibility that the competitor might eliminate himself or be eliminated by other causes. As this Court indicated in the sentence following the one quoted by petitioners (Pet. Br., p. 85)—"*If* [the conspirators] do continue such efforts in pursuance of the plan the conspiracy continues up to the time of *abandonment* or success" (218 U. S. at 608). And in a treble damage action plaintiff has "the burden of proving that the conspiracy in fact did continue." *Royster Drive-In Theatres, Inc.* v. *American Broadcasting-Paramount Theatres, Inc.*, 268 F. 2d 246, 249 (2 Cir. 1959), cert. denied 361 U. S. 885 (1959).

And wherever there is a failure of proof of causal connection, there is no issue for a jury. "Absent a showing of causal connection between the collusion and jobbers' refusals to handle plaintiff's product, dismissal was mandatory." *Monticello Tobacco Company, Inc.* v. *The American Tobacco Co.*, 197 F. 2d 629, 633 (2 Cir. 1952), cert. denied 344 U. S. 875 (1952). In accord, *e.g.*, *Momand* v. *Universal Film Exchanges, Inc.*, 172 F. 2d 37, 43 (1 Cir. 1948), cert. denied 336 U. S. 967 (1949), reh. denied 337 U. S. 934, 961 (1949) (directed verdict for defendant); *Wolfe* v. *National Lead Co.*, 15 F. R. D. 61, 63 (N. D. Cal. 1953), affd. 225 F. 2d 427 (9 Cir. 1955), cert. denied 350 U. S. 915 (1955) (complaint dismissed); and *Sperry Products, Inc.* v. *Aluminum Company of America*, 171 F. Supp. 901, 939 (N. D. Ohio 1959), affd. on this issue 285 F. 2d 911, 927 (6 Cir. 1960), cert. denied 368 U. S. 890 (1961) (counterclaim dismissed).

B. Nothing in *Eastman Kodak*, *Story Parchment* or *Bigelow* Dispenses With Proof of Causal Connection or Bars a Directed Verdict in the Absence of Proof of Such Connection.

Petitioners argue the decision below "is in direct conflict" with "three landmark decisions of this court": *Eastman Kodak Co.* v. *Southern Photo Materials Co.*, 273 U. S. 359 (1927); *Story Parchment Co.* v. *Paterson Parchment Paper Co.*, 282 U. S. 555 (1931); and *Bigelow* v. *RKO Radio Pictures, Inc.*, 327 U. S. 251 (1946) (Pet. Br., p. 81). *Eastman Kodak*—although cited in a point heading in petitioners' brief (p. 81)—is nowhere further referred to. *Story Parchment* and *Bigelow* are discussed at length (Pet. Br., pp. 81-90).

Apparent throughout petitioners' argument is a fundamental confusion of the proof required to establish (1) the *fact of damage* or the causal connection between the

alleged violation and their injury, and (2) the dollar *amount of damage* which a plaintiff may recover when he has proved both violation and causal connection. Concededly, damages may be recovered even where they cannot be calculated with exactness and a defendant may not complain when his wrongful conduct has rendered difficult the precise ascertainment of damages. But a plaintiff must nonetheless offer sufficient competent proof that he was in fact injured by a defendant's conduct.

The three decisions of this Court on which petitioners rely made this distinction clear. In all three cases, it was later pointed out, "the illegal practices of defendants constituted the only active cause of plaintiff's injury." *Momand* v. *Universal Film Exchanges*, 172 F. 2d 37, 42 (1 Cir. 1948), cert. denied 336 U. S. 967 (1949), reh. denied 337 U. S. 934, 961 (1949); see too *Herman Schwabe, Inc.* v. *United Shoe Machinery Corp.*, 297 F. 2d 906, 913 (2 Cir. 1962). None permitted recovery without proof of causal connection in addition to the amount of damages.[22]

In *Eastman Kodak* plaintiff had indisputably been injured by defendant's act.[23] The only question was whether

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[22] The distinction, of course, is not limited to private actions under the antitrust laws. Thus this Court cited *Story Parchment* in a case involving the rejection of a lease in a proceeding under the Bankruptcy Act. *Palmer* v. *Connecticut Railway & Lighting Company*, 311 U. S. 544, 561 (1941):

> "Certainty in the fact of damage is essential. Certainty as to the amount goes no further than to require a basis for a reasoned conclusion."

[23] Plaintiff, a stock house dealing in photographic supplies, had purchased its goods from defendant on the same terms as other dealers with whom it was thereby able to compete (273 U. S. at 368). Thereafter defendant, having acquired control of other stock houses in plaintiff's city in competition with plaintiff and having unsuccessfully attempted to purchase plaintiff's business, refused to sell plaintiff its goods at the prices at which they were sold to the dealers and agencies defendant controlled and with whom plaintiff

the injury had been inflicted "in furtherance of a purpose to monopolize." Defendant contended that its refusal to continue to sell plaintiff at discounts which would have enabled it to compete "was justified by the fact that the plaintiff had previously undertaken to handle the goods of another manufacturer under a preferential contract" (*Id.* at 375). But plaintiff's handling of such other goods, as this Court held, could not in itself justify defendant's refusal, if only because "it was not shown that the defendant knew of this contract when it refused to sell its goods to the plaintiff" (*Ibid.*). And this Court found that "the circumstances disclosed in the evidence sufficiently tended to indicate such purpose [to monopolize], as a matter of just and reasonable inference, to warrant the submission of this question to the jury" (*Ibid.*). In a separate section of the opinion this Court thereafter discussed the evidence relating to "the amount of damages" (*Id.* at 376-379).

Again in *Story Parchment*, where this Court reinstated a judgment on a jury verdict for plaintiff, this Court found "sufficient support in the evidence" for the findings that respondents had combined to monopolize interstate trade and that "petitioner was injured in its business and property as a result of this unlawful combination" (282 U. S. at 560). Nowhere did it hold, as petitioners here argue, that proof of conspiracy to eliminate a competitor by the three respondents holding monopoly power and the demise of the competitor "presented sufficient evidence of causation to sustain a verdict" (Pet. Br., p. 81). There was abundant

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therefore could no longer compete (*Id.* at 368-369).

Petitioners here, unlike plaintiff in *Eastman Kodak*, have failed to show injury resulting from respondents' alleged refusals to deal with them or that respondent's prevented them from obtaining supplies elsewhere on terms which would have enabled them to compete, or even that their business was injured because of lack of supplies (*supra*, pp. 29-43).

evidence of causal connection."[24] And this Court again separately considered the question of the amount of damages and emphasized the distinction which petitioners here disregard (*Id.* at 562):

> "It is true that there was uncertainty as to the extent of the damage, but there was none as to the fact of damage; and there is a clear distinction between the measure of proof necessary to establish the fact that petitioner had sustained some damage, and the measure of proof necessary to enable the jury to fix the amount. The rule which precludes the recovery of uncertain damages applies to such as are not the certain result of the wrong, not to those damages which are definitely attributable to the wrong and only uncertain in respect of their amount."

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[24] Petitioner in *Story Parchment* claimed it had been injured because it was compelled to sell its products at reduced prices to meet respondents' reduced prices.

This Court's opinion noted that there was "evidence, sufficient to justify the action of the district court in submitting the issue to the jury, that after petitioner began business the three companies combined and conspired to continue" their prior substantial monopoly (282 U. S. at 560). Moreover, "there was evidence from which the jury reasonably could have found that in pursuance of the conspiracy respondents sold their goods below the point of fair profit, and finally below the cost of production; that petitioner had an efficient plant and sales organization, and was producing a quality of paper superior to that produced by either of the three companies; and that current prices, shown in detail, were higher during a period antedating the unlawful combination and price cutting in pursuance of it than afterward" (*Id.* at 561). There was also evidence showing the higher prices received by petitioner before, and the lower prices after, respondents' cut prices were put in operation (*Id.* at 561). Finally, there was evidence tending to show that petitioner's losses did not result from any inefficiency in the production or marketing of its product (37 F. 2d at 542).

The injury to petitioner's business was manifestly the proximate result of respondents' price cutting. Certainly "it is fair to say that the natural and probable effect of the combination and price cutting would be to destroy normal prices" (282 U. S. at 561).

Bigelow v. *RKO Radio Pictures, Inc.*, 327 U. S. 251 (1946), reaffirmed the distinctions made clear in *Eastman Kodak* and *Story Parchment*. There was a conceded unlawful conspiracy to maintain a discriminatory system of distribution (327 U. S. at 254). Petitioners, theatre owners in Chicago, were denied the early releases of motion pictures which were enjoyed by theatres owned or controlled by certain of the respondents and were unable to obtain them until after most of the theatres owned by respondents, several of which competed with petitioners' theatre, had finished their showing (*Id.* at 255-256).

Despite the disagreement in the Court as to whether or not petitioners there had shown the fact of damage, neither opinion suggested that such proof was no longer necessary. "The earlier a playing position," the majority found, "the more desirable it is, since it is preferable to exhibit pictures before they have been shown to the public in other theatres in the competitive area" (327 U. S. at 256). This would seem confirmed by evidence of the reduction of petitioners' receipts during the period of the conspiracy and of the substantially higher receipts of a comparable competing theatre which enjoyed a prior run (*Id.* at 257-258). "Upon the record in this case it is indisputable that the jury could have found that during the period in question a first or prior run theatre possessed competitive advantages over later-run theatres, . . . and that, other things being equal, the establishment of the discriminatory release system was damaging to the petitioners, who were relegated by it to a playing position inferior to that of their competitors" (*Id.* at 260). "The evidence here was ample to support a just and reasonable inference that petitioners were damaged by respondents' action, whose unlawfulness the jury has found, and respondents do not challenge" (*Id.* at 266). And on the amount of damages, assuming sufficient proof of the fact

of damage, this Court then followed *Eastman Kodak* and *Story Parchment* to permit "a just and reasonable estimate of the damage based on relevant data" (*Id.* at 264).

Thus in *Bigelow* petitioners had clearly shown they were unable to obtain releases of motion pictures, unlike petitioners here who never established they did not have sufficient supplies of oxide or that they could not obtain them. In *Anderson* v. *Mt. Clemens Pottery Co.*, 328 U. S. 680 (1946), this Court later made it clear that the requirement of certainty in the fact of damage had not been abandoned. It cited *Bigelow* as well as *Eastman Kodak* and *Story Parchment*. "[T]he rule that precludes the recovery of uncertain and speculative damages," it then said, "applies only to situations where the *fact of damage* is itself uncertain" (328 U. S. at 688). Only where the fact of damage is certain, and the "uncertainty lies only in the amount of damages," do *Bigelow*, *Story Parchment* and *Eastman Kodak* permit "a reasonable inference as to the extent of the damages" (*Ibid.*).

The lower courts have similarly construed the three decisions on which petitioners rely. "These cases," the Court of Appeals for the Third Circuit recently said in affirming a judgment for defendants in a refusal to deal case because there was "no damage or legal injury," "merely stand for the proposition that having established the fact of damage or legal injury, the difficulty of determining the amount of damage will not preclude a recovery." *Lawlor* v. *National Screen Service Corporation*, 270 F. 2d 146, 153 (3 Cir. 1959), cert. denied 362 U. S. 922 (1960). They "have drawn a distinction between the quantum of proof necessary to show the *fact* as distinguished from the *amount* of damage; the burden as to the former is the more stringent one." *The Flintkote Company* v. *Lysfjord*, 246 F. 2d 368,

392 (9 Cir. 1957), cert. denied 355 U. S. 835 (1957) (emphasis in original).[25]

"In other words," the Court of Appeals continued in *Flintkote*, "the *fact* of injury must first be shown before the jury is allowed to estimate the *amount* of damage" (246 F. 2d at 392; emphasis in original). And that fact must still be shown with "a fair degree of certainty." As the Court of Appeals said in *Momand* v. *Universal Film Exchanges, Inc.*, 172 F. 2d 37 (1 Cir. 1948), cert. denied 336 U. S. 967 (1949), reh. denied 337 U. S. 934, 961 (1949) —on which the court below relied (R. 2573)—after discussing *Bigelow, Story Parchment* and *Eastman Kodak* (172 F. 2d at 43):

> "The law has gone far to ease that burden [of strict requirements of proof as to exact quantity of damage] by permitting proof of losses which border on the speculative, in order to implement the policy of the anti-trust laws. *But a fair degree of certainty is still essential to show the causative relation of defendants' misconduct and plaintiff's injury.*"

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[25] The two cases in the Ninth Circuit which petitioners cite (Pet. Br., p. 85)—*Richfield Oil Corporation* v. *Karseal Corporation*, 271 F. 2d 709 (1959), and *Fox West Coast Theatres Corporation* v. *Paradise Theatre Building Corporation*, 264 F. 2d 602 (1958)—stand for no different construction of *Bigelow* or any other decisions of this Court. *Richfield* cited the statement from *Flintkote* quoted above and then held plaintiff had proved the causal connection (271 F. 2d at 711-713). *Fox*, which discussed no cases, involved a conspiracy to maintain a discriminatory motion picture distribution system like that in *Bigelow*.

QUESTION 2[26]

The evidence of causal connection was insufficient to support a verdict for petitioners. The Court of Appeals therefore properly affirmed the judgment entered on the jury's verdict for respondents.

The question presented here is whether petitioners "were deprived of a trial by jury" by the judgment of the Court of Appeals (Pet. Br., p. 5).

The essence of petitioners' argument is that "there was a conflict in the evidence on the issue of causation" which they were entitled to have "determined by the jury" (Pet. Br., p. 91), that the trial court was of the opinion that "sufficient evidence was present to submit the case to the jury" and submitted it to the jury (*Id.* at 91-92), that the Court of Appeals erred in reviewing the record to determine whether the evidence was sufficient to support a verdict for petitioners (*Id.* at 92-99), and that the Court of Appeals somehow directed a verdict for respondents (Pet. Br., pp. 91, 92).

Certain aspects of this argument should be clarified at the outset.

First, respondents of course do not question that "it is the jury, not the Court, which is the fact-finding body," as petitioners point out in their quotation from *Tennant* v. *Peoria & Pekin Union Railway Co.*, 321 U. S. 29, 35 (1944) (Pet. Br., pp. 93-94). This means, as *Tennant* added, that

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[26] The question here discussed is actually the third question on which this Court granted certiorari and appears as Question 3 under "Questions Presented" in petitioners' brief (p. 5).

This question, however, is discussed here as "Question 2," following its designation and the sequence of argument in petitioners' brief (pp. 91-111).

"Courts are not free to reweigh the evidence and set aside the jury verdict merely because the jury could have drawn different inferences or conclusions or because judges feel that other results are more reasonable" (321 U. S. at 35).

But not all cases are therefore to be determined by juries. Nor do all jury determinations stand. "The rule is settled for the federal courts and for many of the state courts, that whenever in the trial of a civil case the evidence is clearly such that if a verdict were rendered for one of the parties the other would be entitled to a new trial, it is the duty of the judge to direct the jury to find according to the views of the court." *Pennsylvania Railroad Company* v. *Chamberlain*, 288 U. S. 333, 343 (1933). See also *Slocum* v. *New York Life Insurance Co.*, 228 U. S. 364, 369 (1913); *Lauria* v. *E. I. du Pont de Nemours & Co.*, 250 Fed. 353, 357 (2 Cir. 1918).

Second, the trial judge reserved decision on respondents' motions for a directed verdict, the jury verdict was for respondents, and the trial court expressly concurred in it (R. 2052). The pending motions for a directed verdict thereby became moot but nothing supports petitioners' inference that the trial judge thought petitioners had presented a jury question on the causation issue (*supra*, p. 4). Had the jury found for petitioners, the trial judge might well have set aside the verdict and directed judgment for respondents.[27]

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[27] The case having been fully tried, the trial judge followed long established practice in submitting it to the jury, even though he might have felt petitioners had not sustained their burden on the causation issue or any other issue. *Baltimore & Carolina Line, Inc.* v. *Redman*, 295 U. S. 654, 659-661 (1935). Otherwise, if he had simply granted respondents' motion for a directed verdict, there would be no jury verdict to reinstate and an entire new trial would be necessary if it were later determined that the case should have gone to the jury.

Third, the Court of Appeals did not direct a verdict for respondents as in the case where it reverses a judgment for petitioners entered on a jury verdict in their favor. Nor is this a case in which disputed factual issues have been disposed of before trial, as in *Poller* v. *Columbia Broadcasting System, Inc.*, —— U. S. —— (February 19, 1962).

The Court of Appeals here merely affirmed "the judgment as rendered" for respondents, on the jury verdict, in the court below (R. 2571). In so doing, it applied the well-settled rule that a "successful party in the District Court may sustain its judgment on any ground that finds support in the record." *Jaffke* v. *Dunham*, 352 U. S. 280, 281 (1957); see also *Helvering* v. *Gowran*, 302 U. S. 238, 245 (1937); *Story Parchment Company* v. *Paterson Parchment Paper Co.*, 282 U. S. 555, 560 (1931); *Lagnes* v. *Green*, 282 U. S. 531, 538-539 (1931); *United States* v. *American Railway Express Co.*, 265 U. S. 425, 435 (1924). Thus where the evidence is insufficient to support a verdict for a plaintiff—so that a directed verdict could have been granted the defendant in the trial court—the Court of Appeals should affirm the judgment for defendant, without discussion of or regard to the errors claimed by plaintiff. *E.g.*, *Syres* v. *Oil Workers International Union*, 257 F. 2d 479, 484 (5 Cir. 1958), cert. denied 358 U. S. 929 (1959); *United States* v. *J. E. Bohannon Company, Inc.*, 232 F. 2d 756, 757-758 (6 Cir. 1958); *Wonnacott* v. *Denver and Rio Grande W. R. Co.*, 187 F. 2d 607, 608 (10 Cir. 1951); *Monolith Portland Midwest Co.* v. *Western Public Service Co.*, 142 F. 2d 857, 859-860 (10 Cir. 1944); *Nalbantian* v. *United States*, 54 F. 2d 63, 64 (7 Cir. 1932), cert. denied 285 U. S. 536 (1932); *Weidenfeld* v. *Pacific Imp. Co.*, 43 F. 2d 817, 820 (2 Cir. 1930), cert. denied 282 U. S. 890 (1930).

Here affirmance was on the ground that the evidence of the necessary causal relation was insufficient and that the

trial judge, if the verdict had been for petitioners, would have been obliged to direct a verdict for respondents (R. 2572-2573). Patently it was proper for the Court of Appeals to review the record, and we submit its conclusion was in all respects correct.

A. The Sufficiency of the Evidence Is Always a Question of Law

"Whether the evidence was sufficient or otherwise," when respondents moved for a directed verdict, "was a question of law to be resolved by the court." *Baltimore & Carolina Line, Inc.* v. *Redman*, 295 U. S. 654, 659 (1935). And in determining the sufficiency of the evidence in a civil or criminal case, as Judge Learned Hand put it, the question is whether it "will rationally support a finding in favor of the party having the affirmative." *United States* v. *Sherman*, 171 F. 2d 619, 621 (2 Cir. 1948), cert. denied *sub nom. Grimaldi* v. *United States*, 337 U. S. 931 (1949).

A verdict will "normally be directed where both the facts and the inferences to be drawn therefrom, as supported by the overwhelming weight of the evidence, point so strongly in favor of one party or the other that the court feels reasonable men could not possibly come to a contrary conclusion." 5 Moore, *Federal Practice* (2d Ed. 1951) ¶50.02, P. 2314; *Gunning* v. *Cooley*, 281 U. S. 90, 94 (1930). Indeed, "where proven facts give equal support to each of two inconsistent inferences," this Court has said, "judgment, *as a matter of law*, must go against the party upon whom rests the necessity of sustaining one of those inferences as against the other, before he is entitled to recover." *Pennsylvania Railroad Co.* v. *Chamberlain*, 288 U. S. 333, 339 (1933). And "the essential requirement is that mere speculation be not allowed to do duty for probative facts." *Galloway* v. *United States*, 319 U. S. 372, 395 (1943), reh. denied 320 U. S. 214 (1943).

These same rules apply, of course, to private actions under the antitrust laws. Petitioners' burden was to prove causal connection to a "reasonable certainty," or a "reasonable probability" or to a "fair degree of certainty" (*supra*, p. 52). The evidence must be "substantial." *Rushing* v. *Metro-Goldwyn-Mayer Distributing Corp. of Texas*, 214 F. 2d 542, 544 (5 Cir. 1954). No more than in other fields may a jury verdict rest on "speculation, surmise, and conjecture." *Wolfe* v. *National Lead Company*, 225 F. 2d 427, 433-434 (9 Cir. 1955), cert. denied 350 U. S. 915 (1955). Here too the Court of Appeals, in testing the sufficiency of the evidence, is entitled to disbelieve the testimony of petitioners' witnesses when such testimony is inconsistent with the facts, circumstances and documentary evidence. *Milwaukee Towne Corp.* v. *Loew's Inc.*, 190 F. 2d 561, 567 (7 Cir. 1951), cert. denied 342 U. S. 909 (1952). And, as in any other case, it may disregard petitioners' self-serving conclusions where they "offered no evidence to substantiate such conclusions." *Rushing* v. *Metro-Goldwyn-Mayer Distributing Corp. of Texas*, 214 F. 2d 542, 544 (5 Cir. 1954).

B. The Evidence Was Palpably Insufficient to Support a Verdict for Petitioners

Petitioners' four ventures in the vanadium business have been discussed at length (*supra*, pp. 14-29), together with the reasons petitioners allege for their failure (*supra*, pp. 29-43). We have discussed, in their proper time sequence and with reference to the ventures to which they were supposed to relate, each of petitioners' thirteen so-called "requests for vanadium oxide from respondents" (*supra*, pp. 31, 32-33, 39, 42).

These facts need not be reviewed again. Nor is it necessary here to meet each of petitioners' trifling disagreements with the Court of Appeals' summary of the evidence (Pet. Br., pp. 100-111).

Petitioners, of course, had to prove good faith requests for oxide from respondents. Obviously they could not have been damaged by the denial of what they did not request. As stated in *Royster Drive-In Theatres, Inc.* v. *American Broadcasting-Paramount Theatres, Inc.*, 268 F. 2d 246, 251 (2 Cir. 1959), cert. denied 361 U. S. 885 (1959):

> "Finally, appellant complains that its failure to make a demand to the distributors should not be considered fatal to its claim. * * * As we have previously held, and recently reiterated: '[P]laintiffs cannot recover damages on account of any failure to obtain feature pictures for first-run exhibition unless they made demand for that of which they now claim they were deprived by the conspiracy.' J. J. Theatres, Inc. v. Twentieth Century Fox Film Corp., 2 Cir., 1954, 212 F. 2d 840, 845, quoted and followed in Webster Rosewood Corp. v. Schine Chain Theatres, Inc., 2 Cir., 1959, 263 F. 2d 533, 536; accord, Milwaukee Towne Corp. v. Loew's Inc., 7 Cir., 1951, 190 F. 2d 561, 568, certiorari denied, 1952, 342 U. S. 909, 72 S. Ct. 303, 96 L. Ed. 680." [28]

But the sporadic requests and refusals themselves do not prove petitioners' cause of action. They must also prove they were injured by the refusals of their requests. Petitioners add nothing by their suggestion that their thirteen alleged requests were "jointly refused" (Pet. Br., p. 95), when only twice over a period of four years—in June 1941 and in November 1943—did petitioners make contemporaneous or similar "requests" of both VCA and Electromet, and on both occasions received separate and different replies (Ex. 41, R. 271-272; Ex. 42, R. 273; *supra*, p. 42 note).

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[28] Also in accord: *Lawlor* v. *National Screen Service Corporation*, 270 F. 2d 146, 153 (3 Cir. 1959), cert. denied 362 U. S. 922 (1960); *Columbia Pictures Corp.* v. *Charles Rubenstein, Inc.*, 289 F. 2d 418, 421 (8 Cir. 1961); *Standard Oil Company of California* v. *Moore*, 251 F. 2d 188, 198-199 (9 Cir. 1958).

There is still no injury to them on a record which fails to show that the supplies of oxide they had obtained from respondents and others were inadequate or that they ever lost a single sale because of lack of oxide. Nor is there any injury attributable to respondents where the evidence demonstrates that whatever difficulties petitioners may have had were actually the result of wartime shortages and restrictions. See *Wolfe* v. *National Lead Company*, 225 F. 2d 427, 433-434 (9 Cir. 1955), cert. denied 350 U. S. 915 (1955).

Nor did the Court of Appeals require that petitioners prove, as they now argue, that they also "sought and exhausted every conceivable alternative source of supply" (Pet. Br., p. 95). The Court of Appeals merely noted, as the uncontradicted evidence shows, that petitioners had other established supplies and sources available at the times they claim they were injured by respondents' alleged refusals, and this availability was certainly material. *Standard Oil Company of California* v. *Moore*, 251 F. 2d 188, 198 (9 Cir. 1958).

So too petitioners add nothing by the inclusion in their legal argument of various other distortions of the record and inferences which cannot rationally be supported by the record. Thus, nothing is added by petitioners' references to "shattering injurious impact" when they attempt to support it by such statements as that "Apex was not obtaining sufficient quantities of oxide to run its mill at half capacity" (Pet. Br., p. 96)—when the uncontradicted evidence shows that Apex had all the oxide it needed and when the document on which petitioners rely itself shows even more oxide was available.[29] No less transparent

[29] Petitioners cite "D's. V's. Ex. V-1-A; R. 2512A, 1142" (Br., p. 96). Presumably they intended to refer to Exhibit V-1-Q at R. 2512A, and not to Exhibit V-1-A which was received in evidence at R. 1002 and is reprinted at R. 2487-2488.

Exhibit V-1-Q is a letter from Apex to Leir dated September 17, 1941 (R. 2511-2512A). It shows that Apex could then obtain

on the record before this Court is petitioners' claim that, "just before termination of its relationship with petitioners, Apex was unable to obtain oxide supplies after repeated requests" (Pet. Br., p. 96).[30]

Equally frivolous is petitioners' argument that "Apex capitulated shortly after Blanding Mines informed it that Blanding could no longer supply it with a supply of oxide" (Pet. Br., p. 96)—in the face of uncontradicted evidence that Apex had about 50,000 pounds of oxide on hand (*supra*, p. 34); that Apex had received no oxide from Blanding in about a year (*supra*, pp. 36-37); that it had at least one other very substantial regular supplier who continued with Apex and thereafter with Leir (*supra*,

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regular supplies of oxide from National Vanadium, but declined the opportunity (R. 2512; see also *supra*, p. 32).

Other uncontradicted evidence precludes the inference that Apex at that time was unable to obtain oxide. Only a month later Apex wrote Leir that Shattuck had been shipping 12,000 to 18,000 pounds of oxide "to us every couple of weeks" (Ex. V-1-S, R. 1155-1157). At the end of the year Apex had over 45,000 pounds on hand (Ex. 143, R. 1306-1307).

Perhaps Apex did not think operations at more than half capacity were warranted by the demand for its ferrovanadium. Perhaps the explanation is in the testimony of an Apex officer that it was not "until sometime late in 1941" that it completely solved its production difficulties (R. 1351). Perhaps there were other reasons but, whatever they were, shortage of oxide or acts of respondents were not among them.

[30] Here petitioners rely on Apex's December 1941 request of Defense Plant Corporation for part of the output of the new plant then being erected at Monticello, Utah (Ex. 144, R. 2266, 1313).

One simple answer is that Apex, at the time of its request, was not even in operation because it was rebuilding the plant destroyed by a fire (*supra*, p. 34 note). Another is that Apex then had almost 50,000 pounds of oxide on hand (*Ibid.*). Still another is that the request—which was to Defense Plant Corporation, not respondents—led the next month to what Leir himself said were assurances of ample supplies (Ex. V-2-A, R. Vol. IX 603, R. 1176) and to what petitioners themselves here claim were "assurances of governmental cooperation in obtaining additional supplies" (Pet. Br., pp. 104-105).

pp. 32, 35); that Apex had previously made clear its desire to discontinue vanadium operations for other reasons (*supra*, pp. 16-19); that its subsequent decision to discontinue was not related to oxide supplies (*supra*, pp. 16-20, 34-35); and Leir's own testimony that Apex, at the time of the termination, was able to get supplies (R. 1175).

Nor can petitioners reasonably infer that "VCA had interfered with Apex so as to cause petitioners' manufacturing associate Apex to leave the vanadium business" (Pet. Br., p. 99; see also p. 105)—when the uncontradicted evidence is that Apex approached VCA to see whether it would be interested in buying its supplies and equipment after it had served repeated notices on Continental that it was discontinuing operations and when VCA's total "interference" was to purchase, two months later, Apex's supply of magnesite (*supra*, pp. 20, 36).

The varied other claims have no more to support them. The entire record on causation can be read as a whole, and petitioners may have the benefit of all inferences and presumptions the evidence can support. It still cannot rationally support the necessary finding of causal connection because the indisputable evidence is that none of the alleged acts of any of the respondents contributed in any way to petitioners' alleged injury or damage (*supra*, pp. 16-20, 30-37).

Certainly, no jury could find that the alleged refusals to sell oxide to petitioners injured them in their three manufacturing ventures when the record also shows that petitioners had adequate supplies of oxide and that additional supplies were available (*supra*, pp. 30-39, 41-42). Nor could the jury infer anything about the fourth venture, the mysterious "pending negotiations" with Climax—even assuming interference with negotiations can cause an injury to business, contrary to *Feller* v. *International Boxing Club, Inc.*, 227 F. 2d 593 (7 Cir. 1955). The record never dis-

closed what the negotiations were, whatever happened to them, or in what way respondents are supposed to have interfered with them (*supra*, pp. 24-27, 40). A recovery on this record would be merely for the alleged public wrong which might support a Government action and without regard to any private injury to petitioners, contrary to the statute and all the decided cases (*supra*, pp. 48-60).

QUESTION 3

Evidence of the acts of a Union Carbide subsidiary as an agent of the Canadian Government was properly excluded.

There remains only the question whether petitioners can claim damages from respondents for their elimination in 1943 from the Canadian market, alleged to have been effected by a Union Carbide subsidiary in Canada acting as a wartime agent of the Canadian Government (Question 2, Pet. Br., pp. 4-5).

The trial court had instructed the jury that acts of this Carbide subsidiary, Electromet of Canada, "performed as an agent of the Canadian Government . . . would not be a basis for liability on the part of Union Carbide" (R. 2036-2037).[31] The Court of Appeals agreed: Electromet of Canada "was acting as an arm of the Canadian Government, and we do not see how such efforts as appellants claimed defendants took to persuade and influence the Canadian Government through its agent are within the purview of the Sherman Act. See *Eastern Railroad Presi-*

[31] This instruction was not assigned as error in the Court of Appeals and therefore any error in it was waived. *Richfield Oil Corp.* v. *Karseal Corp.*, 271 F. 2d 709, 722 (9 Cir. 1959). Petitioners, however, did assign as error the exclusion of certain evidence with respect to the Canadian episode (R. 2058).

dents Conference v. *Noerr Motor Freight, Inc.*, 81 S. Ct. 523, 5 L. Ed., 2d 464" (R. 2580).

We will not discuss in detail the facts on which petitioners rely. Moreover, we again leave to the brief of the Union Carbide respondents the question of the authority of the Electromet employee Arrouet to act for them (*supra*, p. 40 note). But it must be noted in behalf of VCA that petitioners' offer of proof was limited to alleged acts and statements of employees of the Union Carbide respondents and did not implicate VCA. Thus petitioners offered to prove that Electromet of Canada was "acting under instructions from the officials of Union Carbide or its affiliates in order to eliminate the plaintiff from the Canadian market" (R. 827), "that it was the Carbide officials and employees which directed their wholly-owned and controlled subsidiary . . . to eliminate the plaintiff from the Canadian market" (R. 828), and "that it was the intent and purpose of the Carbide officials and employees to use the Canadian agency for the purpose of restraining the plaintiff's trade, and specifically for the purpose of carrying out the conspiracy to restrain and to monopolize the vanadium industry in the United States and Canada" (R. 828).

Nowhere in his offer of proof did petitioners' counsel charge that VCA knew anything about the acts of Carbide or its subsidiaries with respect to Canadian sales or that the offered proof would link those acts to any alleged conspiracy with VCA. Nothing in it supports petitioners' present characterization of the proof in its brief—*e.g.*, that "Union Carbide conspired with the other respondent VCA to use the Canadian subsidiary" (Pet. Br., p. 113) and that Electromet of Canada's agency relationship with the Canadian Government "was used by Union Carbide and VCA to further their monopoly and conspiracy" (*Id.* at 124).

Even if it be assumed that petitioners' offer of proof was sufficient to include VCA and that the facts are as petitioners contend, the damages they claim for their elimination from the Canadian market are nonetheless not recoverable from these respondents.

Petitioners conceded in their complaint and at the trial—as they concede here (Pet. Br., p. 113)—that Electromet of Canada was in fact the agent of the Canadian Government for the purchase and allocation of vanadium for Canadian steel firms (R. 19-20, par. 36; R. 809). They have no question about the appointment of Electromet of Canada or of the statute under which it was appointed (R. 809). Moreover, they emphasize that this is not an action against the Canadian Government and that neither that Government nor its Office of Metals Controller is charged with any illegality in this case (Pet. Br., pp. 112, 114).[32]

Only a limited issue is presented here. It does not involve the power of an American court to enjoin the alleged activities of the Union Carbide affiliates in this country or the admissibility of the evidence of such activities in support of a claim that the law has been violated. Petitioners in this private action now claim injury and damages only for the

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[32] Electromet of Canada was never served (R. 830) and no objection of sovereign immunity has been interposed.

It is evident, however, that Electromet of Canada, engaged in the wartime purchase and allocation of essential vanadium, was performing a vital government function. For instance, the "supplying of oil to insure the maintenance and operation of a naval force—and in this day and age, an air force—is certainly a fundamental government function serving a public purpose. See Berizzi Bros. v. The Pesaro (1926), 271 U. S. 562, 46 S. Ct. 611, 70 L. Ed. 1088." *In re Investigation of World Arrangements, etc.*, 13 F. R. D. 280, 290 (D. D. C. 1952). Electromet of Canada, acting as its agent, was indistinguishable from the Canadian Government and clearly it would enjoy sovereign immunity for acts done as agent of the government (*Id.* at 291).

concededly valid final act of the Canadian Government—its refusal to buy Van Ex from them for a Canadian steel firm. And this is the act, with the necessary inquiry into its propriety and motivation, that precedent and policy place beyond the Sherman Act and which the courts in this country will not judge.

It has long been settled, of course, that "[e]very sovereign State is bound to respect the independence of every other sovereign State, and the courts of one country will not sit in judgment on the acts of the government of another done within its own territory." *Underhill* v. *Hernandez*, 168 U. S. 250, 252 (1897); *Oetjen* v. *Central Leather Company*, 246 U. S. 297, 303 (1918); *Ricaud* v. *American Metal Company, Limited*, 246 U. S. 304, 309 (1918). Both courts below recognized that petitioners' position, however phrased, necessarily required a forbidden inquiry into, and a determination with respect to, the acts of a sovereign power.

The trial judge, in the extended colloquy with counsel, repeatedly gave this simple basis of his exclusion of the offered evidence (R. 803-839). For instance, "[t]he final act was the act of the Canadian Government. . . . we can't say that what the Canadian Government did was right or wrong. We accept it as it is" (R. 812). "It would be in the nature of this court reviewing an act of the Canadian Government" (R. 816). Finally, "we cannot review a decision by the Canadian Government; it is not within the jurisdiction of this Court" (R. 832). The Court of Appeals was affected by these same considerations. It could not see how the alleged acts of Electromet of Canada "acting as an arm of the Canadian Government" or the other alleged efforts "to persuade and influence the Canadian Government through its agent," were within the purview of the Sherman Act (R. 2580).

The Court of Appeals' reference to *Eastern Railroad Presidents Conference* v. *Noerr Motor Freight, Inc.*, 365 U. S. 127 (1961), was altogether appropriate. *Noerr* is more than the "narrow and specific holding" that petitioners read in it (Pet. Br., p. 120). In *Noerr* the individual truck operator plaintiffs also claimed to be injured by governmental action—there the veto of the "Fair Truck Bill" by the Governor of Pennsylvania (365 U. S. at 130). And this Court in *Noerr* restated the rule of *United States* v. *Rock Royal Co-operative, Inc.*, 307 U. S. 533 (1939), and *Parker* v. *Brown*, 317 U. S. 341 (1943)—"where a restraint upon trade or monopolization is the result of valid governmental action, as opposed to private action, no violation of the Act can be made out" (365 U. S. at 136). "These decisions," it explained, "rest upon the fact that under our form of government the question whether a law of that kind should pass, or if passed be enforced, is the responsibility of the appropriate legislative or executive branch of government so long as the law itself does not violate some provision of the Constitution" (*Ibid.*).[33]

United States v. *Rock Royal Co-operative, Inc.*, 307 U. S. 533, 560 (1939), was an action to compel compliance with an order of the Secretary of Agriculture which had allocated market areas and fixed minimum prices of milk, just as the Canadian Government through Electromet had regulated the purchase and allocation of vanadium in Canada. This Court there rejected the defense that the order had been adopted pursuant to a conspiracy of milk

[33] Subsequent decisions in *Baltimore & Ohio Railroad Company* v. *New York, New Haven & Hartford Railroad Company*, 196 F. Supp. 724 (S. D. N. Y. 1961), and *Parmalee Transportation Company* v. *Keeshin*, 292 F. 2d 794 (7 Cir. 1961) relied on *Noerr* in holding that attempts to influence the actions of the Interstate Commerce Commission were not within the purview of the Sherman Act irrespective of defendants' motives in seeking such action.

producers to obtain a monopoly in violation of the Sherman Act. Later, in *Parker* v. *Brown*, 317 U. S. 341, 350-351 (1943), this Court held the Sherman Act did not apply to a state regulatory system or restrain "a state or its officers or agents from activities directed by its legislature." Still later in *Noerr* this Court said of *Rock Royal Co-operative, Inc.* (365 U. S. at 139):

> "It is neither unusual nor illegal for people to seek action on laws in the hope that they may bring about an advantage to themselves and a disadvantage to their competitors. This Court has expressly recognized this fact in its opinion in *United States* v. *Rock Royal Co-op.*, where it was said: 'If ulterior motives of corporate aggrandizement stimulated their activities, their efforts were not thereby rendered unlawful. *If the Act and Order are otherwise valid, the fact that their effect would be to give coöperatives a monopoly of the market would not violate the Sherman Act . . .*'"

Thus *Noerr* reaffirmed the rule that damages may not be claimed under the Sherman Act for consequences of valid government actions, and gave further support to the fundamental refusal to judge acts of sovereigns. The same rule had been applied much earlier to acts of foreign sovereigns in *American Banana Co.* v. *United Fruit Co.*, 213 U. S. 347 (1909). The Sherman Act was there held inapplicable to defendant's successful efforts, with the help of the Costa Rican Government acting at its instigation, to exclude plaintiff from the Central American banana trade with the United States. The Court there said (213 U. S. at 357):

> "We think it entirely plain that what the defendant did in Panama or Costa Rica is not within the scope of the statute so far as the present suit is concerned."

specified by petitioners in that Court so that, if none is shown to have occurred or to have prejudiced petitioners, respondents may retain the benefit of the jury verdict in their favor and the affirmance of the judgment may stand.

Dated, March 31, 1962.

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In the Supreme Court

OF THE

United States

OCTOBER TERM, 1961

No. 304

CONTINENTAL ORE COMPANY, a partnership, et al.,

Petitioners,

vs.

UNION CARBIDE AND CARBON CORPORATION, et al.,

Respondents.

BRIEF OF RESPONDENTS UNION CARBIDE CORPORATION AND UNITED STATES VANADIUM CORPORATION

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Moreover, it explained (*Id.* at 358):

> "The fundamental reason why persuading a sovereign power to do this or that cannot be a tort . . . is that it is a contradiction in terms to say that within its jurisdiction it is unlawful to persuade a sovereign power to bring about a result that it declares by its conduct to be desirable and proper. *It does not, and foreign courts cannot, admit that the influences were improper or the results bad. It makes the persuasion lawful by its own act. The very meaning of sovereignty is that the decree of the sovereign makes law.*"

And it was immaterial that the allegedly unlawful conspiracy in *American Banana* had roots in this country, just as it is immaterial here that petitioners may claim Electromet of Canada was directed by Union Carbide in New York. As the Court said in *American Banana* (*Id.* at 359) and later repeated in *United States* v. *Sisal Sales Corporation*, 274 U. S. 268, 276 (1927):

> "A conspiracy in this country to do acts in another jurisdiction does not draw to itself those acts and make them unlawful, if they are permitted by the local law."

Petitioners do not cite *American Banana*. Needless to say, its authority continues where, as here, a plaintiff's claim for damages is based on "acts done outside the United States and not unlawful by the law of the place." *United States* v. *Sisal Sales Corporation*, 274 U. S. 268, 275-276 (1927). Still more recently this Court stated with respect to *American Banana*—"This Court agreed that a violation of American laws could not be grounded on a foreign nation's sovereign acts." *Steele* v. *Bulova Watch Co., Inc.*, 344 U. S. 280, 288 (1952).[34]

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[34] Petitioners here rely on *Sisal* and other cases holding that Congress may in some circumstances control the conduct of Amer-

Thus established principles of comity and sovereign immunity, and the limitations on the extraterritorial application of the antitrust laws, require the conclusion that the Sherman Act did not apply and petitioners' evidence was properly excluded.

CONCLUSION

The judgment of the Court of Appeals was in all respects correct and should be affirmed.

We also submit that if this Court should find error on either of the first two questions discussed in this brief (*supra*, pp. 48-70), the proper relief is not the remand to the District Court for retrial which petitioners request (Pet. Br., p. 127). Rather the case should be remanded to the Court of Appeals for consideration of the errors

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ican citizens beyond the territorial limits of the United States (Pet. Br., pp. 117-119).

No one disputes this rule. But in *Sisal* the Court had found the circumstances there "radically different" from those in *American Banana* (274 U. S. at 275). The distinction, this Court later repeated, is that in *Sisal* "the crux of the complaint" was "'not merely of something done by another government at the instigation of private parties;' . . . ." *Steele* v. *Bulova Watch Co., Inc.*, 344 U. S. 280, 288 (1952).

Nor does *United States* v. *Deutsches Kalisyndikat Gesellschaft*, 31 F. 2d 199 (S. D. N. Y. 1929)—on which petitioners place so much reliance (Pet. Br., pp. 117-118)—make corporations liable for acts performed as agents of foreign governments. The corporation there, although partly owned by the French government, was engaged in a purely commercial venture of selling products in the United States (31 F. 2d at 200). This venture was "entirely divorced from any governmental function" and there is a "vast distinction" between a government serving a governmental function and one "seeking additional revenue in the American markets and causing a direct injury in the United States to our domestic commercial structure." *In re Investigation of World Arrangements, etc.*, 13 F. R. D. 280, 291 (D. D. C. 1952).

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In the Supreme Court
OF THE
United States

OCTOBER TERM, 1961

No. 304

CONTINENTAL ORE COMPANY, a partnership, et al.,
Petitioners,
vs.
UNION CARBIDE AND CARBON CORPORATION, et al.,
Respondents.

BRIEF OF RESPONDENTS UNION CARBIDE CORPORATION AND UNITED STATES VANADIUM CORPORATION

OPINION BELOW

The opinion below is as stated in petitioners' brief.

JURISDICTION

The jurisdiction of this Court is as stated in petitioners' brief.

STATUTES INVOLVED

In addition to the provisions of the Sherman and Clayton Acts cited and quoted in petitioners' brief, the following are pertinent:

Act of May 24, 1949, Chapter 139, Section 110, 63 Stat. 105, 28 U.S.C. Sec. 2111:

> "On the hearing of any appeal or writ of certiorari in any case, the court shall give judgment after an examination of the record without regard to errors or defects which do not affect the substantial rights of the parties."

Rule 61, Federal Rules of Civil Procedure:

> "No error in either the admission or the exclusion of evidence and no error or defect in any ruling or order or in anything done or omitted by the court or by any of the parties is ground for granting a new trial or for setting aside a verdict or for vacating, modifying or otherwise disturbing a judgment or order, unless refusal to take such action appears to the court inconsistent with substantial justice. The court at every stage of the proceeding must disregard any error or defect in the proceeding which does not affect the substantial rights of the parties."

QUESTIONS PRESENTED

Each of the questions set forth in the writ of certiorari is taken word for word from the petition. In each, the wording has no substantial relationship to the evidence in the case or the proceedings below, and so entirely misstates the issues presented by the record.

The questions actually presented by paragraphs 2 and 6 of the writ of certiorari are in substance the same: whether the court below correctly affirmed the judgment entered upon a jury verdict upon the ground that plaintiffs wholly failed to prove any injury. This question requires solely a review of the evidence. No legal issue is presented.

Two questions are presented by paragraph 5 of the writ of certiorari. The first is the factual question whether there was any evidence that any respondent influenced the Government of Canada, or its agent, a subsidiary of one of the respondents, to decline to buy from petitioners, or that any respondent had anything to do with petitioners' asserted elimination from the Canadian market. The second is the legal question whether, assuming there was evidence of influence, as the court below assumed for the purposes of its opinion, such influence would be cognizable under the antitrust laws.

STATEMENT OF THE CASE

The Proceedings Below.

This action was begun on July 15, 1949 (R. 25). It followed and purported to rely on a criminal case against the same group of defendants filed on September 2, 1948,[1] entitled *United States v. Union Carbide and Carbon Corporation, et al.*, No. 11678, in the United States District Court for the District of Colorado. On June 4, 1957, how-

[1] An indictment against the same defendants was filed on June 1, 1946, and then dismissed on September 2, 1948, when the information was filed.

ever, the Government action was terminated, after a jury trial, by the acquittal of all defendants. No civil suit was brought by the Government at any time.

On June 2, 1958, the present case was brought to trial in the United States District Court for the Northern District of California (R. 110). The defendants in the trial court, respondents here, moved for a directed verdict "on the ground that upon the facts and the law the plaintiff has shown no right to relief" (R. 1989),[2] and the court reserved its ruling on the motion (R. 1989). Thereafter, the jury returned a verdict for the defendants (R. 2051) and the trial court noted its concurrence with such verdict (R. 2052). Judgment was entered upon the verdict (R. 104-05) and plaintiffs appealed (R. 105-06).

Upon appeal to the Court of Appeals for the Ninth Circuit, the "complete record and all of the proceedings and evidence in the above entitled action" were designated by petitioners. The parties designated for printing the entire transcript of testimony (See Appendix A hereto) and stipulated that all exhibits not printed could be considered on the appeal (R. 2057). Following the submission of briefs and oral argument, the Court requested supplemental "memoranda . . . pointing to every specific place in the record where there is testimony or documentary evidence which will show or tend to show" the cause of termination of each of petitioners' ventures in vanadium (Appendix B hereto) and such memoranda were furnished by both sides. Thereafter it entered judg-

[2]Respondents also filed a brief in support of the motion, stating the specific grounds therefor, which were in substance that there had been a total failure of proof as to each aspect of the case.

ment of affirmance on March 22, 1961 (R. 2583). Rehearing was denied on May 15, 1961 (R. 2584).

The Court in its opinion, written by Judge Magruder of the Court of Appeals for the First Circuit, considered all evidence offered, whether it was received or not. It assumed, without attempting to decide, that antitrust violations were shown, but concluded, in the light of the undisputed records and admissions, that petitioners' claims of injuries caused thereby were without basis in fact.

The Parties.

The petitioners in this Court, appellants below, are copartners doing business under the name of Continental Ore Company. The principal and directing partner is Henry J. Leir, the others being his wife and mother-in-law. The vice president of Continental was and is Martin Wolf. Continental is and has been engaged in the business of buying and selling a variety of ores and minerals.

The respondents, appellees below, are:

Union Carbide and Carbon Corporation (Carbide) which is now known as Union Carbide Corporation;

United States Vanadium Corporation (USV), a subsidiary of Carbide when the complaint was filed but now merged with Carbide, which owned mines and vanadium oxide mills; and

Vanadium Corporation of America (VCA) which has no connection with the first two respondents.

Three other subsidiaries of Union Carbide are also named in the complaint as defendants but were never served, and therefore are not respondents here. They are

Electro Metallurgical Company (Electromet or EM), a Carbide subsidiary until its dissolution on January 5, 1949, which made ferrovanadium from vanadium oxide; Electro Metallurgical Sales Corporation (Electromet Sales or EMS), a Carbide subsidiary until its merger with Carbide on March 14, 1949, which sold vanadium products; and Electro Metallurgical Company of Canada (Electromet of Canada), a Canadian corporation and a Carbide subsidiary, which sold ferrovanadium and vanadium oxide.

The Background of the Case.

A. The Vanadium Industry and the War.

The setting of the present case is the vanadium industry in the United States, from 1938, when the appellants took their first step toward entering the business, until 1949, when the lawsuit began. Some of the basic characteristics of the industry and of the wartime period are necessary to an understanding of the case.

Vanadium is found principally in ores, much of which also contain uranium. The ores are concentrated to form red oxide (red cake), then are fused into a black oxide known variously as vanadic acid, vanadium oxide, vanadium pentoxide, or V_2O_5, and then converted into ferrovanadium. This is the end product which is used to strengthen steel.

Vanadium-bearing ores themselves are plentiful. Petitioners' witness, Burwell, so testified (R. 139) as did respondents' witness, Hill (R. 1553). Leir himself conceded that anyone could go out on the Colorado Plateau, find the ore, mine it, and mill it (R. 1199).

Compared with other competing alloys, however, vanadium was and is expensive, and consequently its use has been for many years in a long-term declining trend. Burwell so testified (R. 146), and witnesses from Crucible Steel (R. 1682) and United States Steel (R. 1528) entirely agreed.

The downward drift of the industry was sharply interrupted by the advent of World War II in 1939. Vanadium, as an essential component for armor plate, tank parts, aircraft parts and other implements of war (R. 1526, 1528), experienced a strong upsurge in demand (Ex. 2, Vol. VIII R. 7, 8, 10, R. 113; Ex. 3, Vol. VIII R.11-17, R. 114).

At first, the new demand was principally from abroad. Traders, like the petitioner Leir, sold largely for export until July, 1940, when the embargo on exports took effect (R. 1233-34). The Union Carbide companies, then having a surplus of oxide and excess milling capacity (R. 1578), succeeded in selling most of it to Europe in the year 1939 (R. 148-49). VCA, at the request of the United States, sold 712,000 pounds of oxide to France, although it then had to balance its supplies by purchases from USV under the "Maggie C" contract (R. 1829-31).

Thereafter, as the United States involvement grew deeper, and the embargo took effect, the industry prepared directly for defense needs in the United States. "Uncle Sam needed the vanadium," as Burwell said (R. 160). In August, 1941, for example, the Government was asking VCA to increase its production from an annual rate of 2,700,000 pounds of vanadium to 4,000,000 pounds by the end of 1942 (Exhibit V-2-O; R. 1838-39, 1837). VCA re-

habilitated its idle plant at Naturita, Colorado, in 1939 and started operations there in 1940; by 1942 VCA had begun its operation of the plant built by the Government in Monticello, Utah; USV erected its new mill at Rifle, Colorado, in 1942 and continued the stepped-up operation of its mill at Uravan (Exhibit 6; R. 2069-71, 116; R. 1833).

The war brought in its train a set of sweeping controls. Vanadium was allocated by the War Production Board,[3] restricted by export and import controls,[4] and regulated as to price.[5]

More important in the context of the present case were the huge wartime programs for the acquisition and stockpiling of vanadium and uranium-bearing ores. Two subsidiaries of Union Carbide, as agents of the Government, assisted in the programs.

In early 1942, the respondent USV was appointed agent for Metals Reserve Company (MRC), a Government-owned corporation with authority to acquire ore for the United States (Exhibit U-B, R. 2358-63, 367; Exhibit U-D, R. 2369-81, 373). It proceeded to do so, paying such prices as were necessary. From the Government's point of view the MRC program was expensive, but successful: by the beginning of the year 1944, MRC had amassed a stockpile of about 1,500,000 pounds of vanadium contained in

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[3]Exhibit U-5-O, R. 1363-67; Exhibit U-5-C, R. 985-86; 7 F.R. 4698; 7 F.R. 10934; 8 F.R. 17511, 10 F.R. 10429.

[4]Exhibit U-5-P, R. 1367-68; Exhibit V-2-P, R. 1865-68; General Imports Order M-63, December 28, 1941.

[5]Exhibit V-2-M, R. 1728, R. 2555-64; Exhibit U-5-D, R. 2462-66, 987.

V_2O_5, or about 3,000,000 pounds of oxide (Exhibit U-4-T, R. 2457, 968; Exhibit U-R, R. 2413, 437).

In early 1943, Union Mines Development Company, another subsidiary of Union Carbide, entered into a nonprofit contract with the United States Army (Manhattan District) to proceed "with the utmost secrecy and dispatch" to acquire "the strongest possible control" of the sources of uranium for the Government (Exhibit U-Q, R. 2397, 2403, 418). The result was that not only were large supplies of uranium acquired by the Manhattan District atomic bomb project, but vanadium as well. By September 30, 1944, the Army Engineers had built up a stockpile of vanadium oxide, as received from the Grand Junction mill, amounting to over 723,000 pounds, a supply which increased steadily until it reached about 1,600,000 pounds in February, 1946 (Exhibit U-5-T, R. 2485, 1985).

Thus, the Government programs resulted in a glut of vanadium by 1944 as the arms build-up tapered off and the end of the war approached. The program specifically designed to expand the supply of vanadium had succeeded and was terminated. The uranium program, which continued in operation, necessarily added more unwanted vanadium to the already bulging stockpiles.

B. The Petitioners' Ventures in Vanadium.

Continental's activities in vanadium closely coincide in time with the period of wartime demand and shortage. The first sales were in mid-1939. Volume rose rapidly in 1940 and 1941, quadrupled by 1942, then declined sharply in 1943, and dwindled to insignificance by 1944 and 1945. Sales after 1945 were negligible (Exhibit 119, R. 2212, 1090).

Continental's business as a whole was in a variety of metals and minerals, vanadium being a small part of its activities (R. 1083-86). It never made any permanent commitment to the vanadium industry. It built no plant or mill and the only permanent equipment it bought was a mixing container or "pebble mill" which cost less than $500 and was retained for only a few months (R. 1211-15). Continental had no regular employees with training or practical experience in metallurgy, in vanadium or otherwise (R. 910-11). Leir considered it "irrational" to stockpile vanadium in advance of proven demand (R. 1233) and preferred to let other companies associated with him make commitments to suppliers.[6] Thus the company maintained itself in an entirely flexible position, able to trade in whatever was in demand at any given time.

Continental's first and major venture in the vanadium business was with Apex Smelting Company, an aluminum processor. Leir, on behalf of a French associate, Brignoud, made a contract with Apex in July, 1938, providing that Apex would make ferro alloys, including vanadium. Leir was to procure the supplies and sell the finished product for Apex and share in the Apex profits. The technical knowledge was to come from Brignoud in France (Exhibit 117, R. 2187-2201, 1050; R. 1059, 1234). The processing was to be done at the Apex plant by Apex employees (R. 910) but Apex had never made ferrovanadium before (R. 800-01, 1060).

The Apex plant did not actually start production until mid-1940, two years after the contract was made (R. 1062,

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[6]Discussed hereinafter, pages 30-37, 41-44.

1124, 1234, 1302). In the next two years, it produced about 100,000 pounds of ferrovanadium (Exhibit 119, R. 2212, 1090; R. 1351), much less than the planned capacity (R. 856, 1113). The project suffered technical setbacks and steadily lost money, and it diverted effort and time from Apex's essential aluminum business, and, for these reasons, Apex terminated the arrangement over the protests of Leir (Exhibit V-1-S, R. 1155, 1154; Exhibit V-2-A, R. 1176; Exhibit V-2-B, R. 1190-91, 2520-22, 1187; R. 1287, 1290-95).[7]

Continental's next major venture was in a product Leir called Van-Ex. Apex started to produce it for Continental; then, after Apex's termination in mid-1942, Continental produced it on its own for a few months. Almost all of the sales of Van-Ex were made in 1942 at the height of the shortage. They amounted in that year to $171,166.50, or about three-fourths of Continental's vanadium sales for the year (Exhibit 119, R. 2212, 1090).

Van-Ex was simply a repackaged vanadium oxide. The first shipment was made with an addition of a little fluorspar to conceal the composition (R. 1162) which was supposed to be "secret" (R. 842), but from then on, it was "just the plain ore" (Exhibit V-1-X, R. 1171-72; Exhibit V-1-C, R. 1007-11, 1282). The price of vanadium oxide was fixed at the time by the OPA (7 F.R. 3153; Exhibit V-2-M, R. 2555-64, 1728), but petitioners' vanadium oxide, repackaged and relabeled as Van-Ex, was sold about 20%

[7]The causes of the Apex termination are more fully set out hereinafter, pages 26-28.

higher than the OPA price (Exhibit 79, R. 2169-74, 797; R. 842, 909-10, 1161, 1172).[8]

Petitioners never sold any substantial amount of Van-Ex to American companies; they did, however, sell in quantity in 1942 to a Canadian company, Atlas Steels, Ltd. Such sales came to an end in early 1943 when the Canadian Government took over the purchasing and allocation for all the Canadian steel mills.[9]

In early 1943, Continental sought and found a new outlet for its supplies with Climax Molybdenum Company. It entered into a contract providing that Continental would ship Climax 20,000 pounds of vanadium which Climax would then convert to ferrovanadium for a fee (Exhibit 111, R. 1016-17, 1014). The contract was successfully completed, half of the materials for it being supplied by a Carbide subsidiary.[10] There is no evidence that either Continental or Climax requested or suggested a further contract.

Petitioners' final venture, with Imperial Paper & Color Corporation, never went beyond the planning stage. The agreement, made in January, 1944, was similar in substance to the Apex contract, but it contained a clause to the effect that the "contract" was contingent upon Imperial's decision whether actually to enter the field at all (Exhibit 110, R. 2175, 2178, 1014). Imperial never consummated the agreement and did not install the equip-

[8]The OPA interpreted the Act to forbid raising prices based upon a mere change of labels. Official Interpretations, 5-12-42, 5-23-42, Pike & Fischer, O.P.A. Service (1942) Vol. 1, page 11:1011, and see generally pp. 11:1012-28.

[9]Discussed in detail hereinafter pages 46-55, 75-77.

[10]Discussed hereinafter, pages 37-39.

ment for making ferrovanadium. Instead, it finally wrote Continental in December, 1944, that it did not wish to undertake the risks (Exhibit 114, R. 1022-23).[11] By that time, Continental was already, in substance, out of the vanadium business; it was refusing a flood of offers of supplies and otherwise in its contemporaneous letters exhibiting a lack of further interest in the material which had, by then, become plentiful.[12]

The Petitioners' Claims.

A. The Monopoly and Conspiracy Charges.

The complaint charges a conspiracy to commit various acts in violation of the antitrust laws. Most of the assertions, though denied, will not be discussed here because they are irrelevant to petitioners' claims of damage and were not dealt with by the court below. Two categories of glaring and repeated inaccuracy in petitioners' brief, however, must be met:

(1) No antitrust violations have ever been "confessed" or "admitted" by respondents, as petitioners repeatedly assert.[13] The accusations of Leir's friend, Burwell,[14] are

[11]Discussed hereinafter, pages 39-40.

[12]See pages 40-44.

[13]Petitioners even go so far as to misrepresent the opinion below, saying in their brief that the court of appeals "admitted" (page 68) and "conceded" (page 75) alleged antitrust violations. Of course, the lower court did not. It chose to decide the case on the causation issue "because defendants' strongest argument seems to us to apply here." (R. 2572.)

[14]Leir was a stockholder in Burwell's own "little" company (R. 519) and purchased a note of some $200,000 from the company at a discount (R. 541-42). Burwell also acknowledged that he was a competitor of the respondents (R. 516-18) and that he had had a series of policy disputes with his superiors while in the employ of USV (R. 158, 232-34, 289-90).

categorically denied here, as they were by witness after witness at the trial.[15]

(2) Petitioners in their brief list a number of "independent sources of supply" (pages 31-36) which they say were "eliminated by respondents" (page 31). They go so far as to assert that by 1945 "all of the vanadium oxide plants on the Colorado Plateau were controlled and operated by respondents" (page 63). The facts are that with the sole exception of the Durango mill, which plant USV did acquire in 1944, not a single one of the various mills mentioned in the brief (pages 31-36) was controlled and operated by respondents in 1945. The record shows the following:

Shattuck (North Continent Mines). In August, 1944, Union Mines, a Carbide subsidiary, bought North Continent for the Manhattan District at the direction of the United States Army (Exhibit U-2-F, R. 484-86) shortly after Continental declined the opportunity to buy it (R. 1205-08, Exhibit U-5-I, R. 1206).

Nisley & Wilson (Gateway Mill). After the termination of its toll agreement with the Government, the Nisley partnership sought to reopen its mill in 1944 but did not because Continental, its previous customer, refused to buy any of its output and it could find no other customers (R. 733-42). No respondent acquired it.

Blanding. The plant was allowed to revert to the Defense Plant Corporation in 1944 (R. 1728-29) after Con-

[15]Testimony of Remmers, R. 1368-1475; Priestley, R. 1475-1522; Hill, R. 1534-96; Holmes, R. 1596-1604, 1625-60; Emigh, R. 1604-25; DuTot, R. 1662-71; Colvin, R. 1672-91; Kett, R. 1806-22; Gibbons, R. 1822-60; Bransome, R. 1860-1964; Laub, R. 1964-84.

tinental declined to finance it or buy its existing supplies (R. 1713-26). No respondent acquired it.

Morrison-Ackermann (Loma Mill). The mill closed in 1941 as the result of technical difficulties and unsuitable equipment (R. 688-90, 1538-39). Thereafter Nisley bought some of its equipment (R. 644-45). Metals Reserve Company bought some of the stockpiled ore (R. 1538-39). No respondent acquired it.

Mesa. This was never a successful operation (R. 1539-40, 1544, 1597-98) and the plant and most of the equipment were abandoned for back taxes (R. 1599). USV acquired space at the mill for stockpiling (R. 1599, 1639) and certain claims on a royalty-payment basis (R. 1639-49) but never bought the mill (R. 1599-1600).

Mammoth-St. Anthony. USV negotiated to buy the production of this mill but did not do so. The production went first to Germany and then to another vanadium producer, Vitro Chemical Company (R. 177-78, 343). No respondent ever acquired the plant.

Anaconda Copper. Anaconda produced only red cake, which petitioners could not use and did not try to buy. USV bought the red cake from 1941 through 1946 but never acquired the plant or facilities (Exhibit 64, R. 2147-50, 591; R. 589, 621).

B. The Damage Claims.

Petitioners misrepresent the damage issue entirely when they assert as a fact in their brief that they were "eliminated" or "excluded" from the vanadium business, and say that the only issue is whether the "elimination" was

caused by respondents.[16] Respondents deny that there is any evidence in the record that petitioners were eliminated. In their view, all of the evidence is that petitioners were in and out of the business at will. The issues turn on whether they suffered any demonstrated injuries on the occasions when they were in the business.

As the lower court accurately stated in what respondents regard as the most significant passage in the opinion (R. 2573-74):

> "Appellants have complained of the loss of a few named, specific, business arrangements rather than a general loss inflicted by the defection of countless, individual customers. Direct evidence of causation was readily available to Continental, while in the case cited [Bigelow v. RKO Radio Pictures, Inc., 327 U.S. 251 (1946)] such direct evidence was practically impossible to come by."

Not only are the business relationships in this case specified; so is the cause of each alleged loss.

Petitioners' claims of injury, as alleged in the complaint and developed at the trial, fall into two categories:

> (1) A claim that petitioners could not secure enough supplies for their various ventures, allegedly because respondents refused to sell to them and interfered with their other sources of supply, and
>
> (2) A claim that respondents directly interfered with their business relationships with Apex and Climax and Atlas Steels.

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[16]Petitioners also misrepresent the opinion below, saying that this "elimination" was "admitted" for the purposes of the opinion (*e.g.*, page 78). Of course this is untrue. The lower court concluded that there was no evidence at all of any elimination.

No other claims of damage were made in the complaint or sought to be proved at the trial.

Thus, the complaint specifies that the Apex contract failed "for the specific reason that it was unable to obtain vanadic acid" (Paragraph 33, R. 18). Van-Ex is claimed to have been discontinued "because [of] the difficulty of securing raw materials" (Paragraph 34, R. 18). The Imperial contract was allegedly abandoned "because of the inability of Imperial or Continental to secure vanadium oxide or vanadium-bearing ores" (Paragraph 35, R. 19).

Not only is it claimed in the complaint that in each of these arrangements appellants failed because of their inability to secure raw materials, it is also expressly denied that either the Apex or Imperial contracts failed for inability to make sales (Paragraph 35, R. 19):

> "Throughout this period of time, Continental had secured orders for all of the ferro-vanadium to be produced by Imperial and or Apex, but it was unable to fill the said orders because of the inability to secure ferro-vanadium for lack of the raw materials."

Such was the testimony at the trial. The attempted proof of damage, in fact, was all designed to show what would have been Continental's sales, based upon the hypothesis that it had had adequate sources of supply (R. 852, 856-57, 869-63, 1107-09, 1112-13).

The claims of interference are the second category. They are logically irrelevant if, in fact, petitioners were able to sell all they produced and were limited only by their supplies. Nevertheless, the claims were made and will be discussed.

The complaint does not specifically allege a direct interference with Apex, but, at the trial, petitioners sought unsuccessfully to show that VCA, which purchased some equipment from Apex after Continental had refused it and after the Apex contract was terminated, did so in order to cause injury.

The complaint does allege an interference with petitioners' Canadian business and a threat to Climax Molybdenum (Paragraphs 36, 37, 38, R. 19-21). Petitioners sought to prove both at trial by offering hearsay testimony that a non-officer employee of a Carbide subsidiary had threatened them.

For the first time on this review, the petitioners make the further claim in their brief (page 61) that respondents interfered with a plan of Leir's to build a vanadium mill. At the trial, there was no attempt to prove such interference, nor that Leir had any idea of building a mill.

The foregoing are the specific claims of injury. Each will be discussed in the remainder of this brief.

SUMMARY OF ARGUMENT

I

The overriding principle, determinative on this review, is that if the judgment of the trial court entered upon the jury verdict was right, it should stand. Similarly, if the affirmance by the court below was right, even if based in any part on the wrong reasons, it should in turn be upheld. Petitioners cannot be aggrieved if their proof shows that in fact they had no case.

II

Petitioners' specific claim of damage as to each of their ventures in vanadium is that they were unable to procure sufficient supplies and failed for that reason. Their own admissions and their own records elicited at the trial are exactly to the contrary.

During the course of the Apex contract, which lasted from mid-1938 to mid-1942, Continental and Apex continuously refused offered and available supplies amounting to many times the quantities actually used for the contract. In 1939, 1940 and 1941, they resold other supplies not needed for the business. The contract was terminated by Apex for reasons specified in its contemporaneous letters to the effect that Apex was losing money and valuable time, and there was no mention of any lack of supplies whatever. Instead, Apex complained that it could not use the supplies that Continental had procured. At the termination, Apex had on hand some 50,000 pounds of vanadium oxide.

Petitioners' business with the repackaged oxide they called Van-Ex began in 1942 and dwindled to insignificance in 1943. Leir wrote in January, 1943, that he had sufficient raw material and admitted on the witness stand that his supplies were then ample. During 1943, petitioners refused all of the output from one of their regular suppliers, amounting to 88,929 pounds of vanadium oxide, and thereafter refused numerous other offers.

Petitioners' only contract with Climax Molybdenum was in 1943. They in fact secured all their necessary supplies, one-half of the amount from a Union Carbide subsidiary, the other half from the Government agency which peti-

tioners claim was dominated by respondents. Neither Continental nor Climax showed any interest in a further contract.

In the period 1944 through 1949, petitioners had their tentative contract with Imperial. They declined to make use of their requirements contracts with respondents or otherwise to offer to buy. They refused to buy from their regular suppliers and from numerous new sources which offered them substantially unlimited quantities. They turned down a chance to buy outright the mine and mill of the biggest supplier they had.

Thus, petitioners obtained more than adequate supplies for each of their ventures, despite the wartime shortage. They were in the business only because of the shortage and left when it was over. The record is the diametrical opposite of their claim.

III

Petitioners claim other miscellaneous interferences not having to do with their supplies, but have no evidence of them.

The claimed interference with Apex was that VCA purchased some of the Apex equipment. The proof, however, was that Apex decided to dispose of it because Apex was going out of the vanadium business. The same equipment was offered to petitioners first, and they declined to purchase it.

The claimed interferences with petitioners' Canadian business and with their continued relationship with Climax both rest upon the same evidence. Petitioners offered to prove through Martin Wolf, Continental's Vice Presi-

dent, that he had a conversation with M. D. Arrouet, who was supposed to have told him that Continental should stay out of the vanadium business or else the Carbide companies would take reprisals affecting Continental and Climax. Arrouet was a non-titled employee of a Carbide subsidiary; there was no proof of his authority to speak for any respondent; and the conversation was plainly hearsay. Nor, if admitted, would it have tended to prove any injurious act; no evidence was offered that the asserted threat was adopted, approved, or acted upon by any respondent in any way.

Petitioners further suggest, for the first time on this review, that respondents interfered with their supposed plan to "build a mill." There is no evidence that they ever planned to build a mill, nor any explanation of what respondents are supposed to have done to interfere with any such plan, if they had had one.

Thus there was no evidence whatever of the claimed interferences, much less any showing of resulting injury.

IV

Not only did petitioners fail to show how any act of respondents could have injured them, they also failed to offer any evidence showing such injury in dollars and cents. They avoided the essential evidence altogether.

Petitioners never showed actual and existing demand for their vanadium. Instead they relied upon arbitrary estimates of market shares, not related to any evidence in the case. Petitioners never offered any evidence of what their net profits in vanadium, if any, actually were, or what they should have been. Instead they pointed to their

profits in other businesses, and to respondents' net profits in vanadium and uranium, and suggested arbitrary rates of net profit. Thus they invited the jury to guess that there would have been sales and guess that there would have been profits, and ignored the probative and material data which they alone could have furnished.

V

On these facts, the principles of *Bigelow v. RKO Radio Pictures, Inc.*, 327 U.S. 251 (1946) are decisive in respondents' favor. The issue is not whether a plaintiff can use the best estimates of damage available, having shown acts which have a clear tendency to injure an otherwise profitable business. Here the issue is whether a plaintiff is permitted to recover when

(1) the specific claims of damages are disproved by its own records and admissions, or are the subject of no evidence at all, and

(2) it deliberately avoids the only figures and facts which could show whether a monetary injury actually occurred.

The *Bigelow* case itself requires that the verdict should be directed in such a case.

VI

The trial court and the court of appeals both regarded the evidence of petitioners' loss of sales in Canada as not cognizable under the antitrust laws. Respondents have already argued that the evidence was incompetent and nonprobative; they also contend that the lower courts were correct in the alternative ground they chose.

It is conceded that the Carbide subsidiary in Canada was appointed agent of the Canadian Government with the authority to purchase vanadium for the Canadian steel mills. Plainly, it was acting within the scope of its agency when it determined not to buy Continental's Van-Ex and ferrovanadium, and its decision, therefore, was that of the Government of Canada. Several principles, including the holdings in *Parker v. Brown*, 317 U.S. 341 (1943) and *Eastern R. Conf. v. Noerr Motors*, 365 U.S. 127 (1961) and the cases under the act of state doctrine, combine to the conclusion that such an act of a foreign government is not within the purview of the American statute.

ARGUMENT

I

IF THE JUDGMENT FOR RESPONDENTS IS CORRECT IN ITS RESULT, IT MUST BE AFFIRMED.

Basic to the present review is the rule, settled by this Court, that "if the decision below is correct, it must be affirmed, although the lower court relied upon a wrong ground or gave a wrong reason." *Helvering v. Gowran*, 302 U.S. 238, 245 (1937); *Brown v. Allen*, 344 U.S. 443, 459 (1953); 1 Wigmore, *Evidence*, pp. 369-70 (3d ed. 1940). An appellee may, without taking a cross-appeal, urge in support of the judgment any matter appearing in the record. *United States v. American Ry. Exp. Co.*, 265 U.S. 425, 435 (1924); *Langnes v. Green*, 282 U.S. 531, 538-39 (1931); *Jaffke v. Dunham*, 352 U.S. 280, 281 (1957). The rule of these cases is codified in the harmless error statute,

28 U.S.C. Sec. 2111, and in Rule 61, F.R.C.P., both cited and relied upon by the court below.

The first respect in which this rule is directly applicable is that it governed, and here justifies, the ground of the Court of Appeals' decision.

In the Court of Appeals, the asserted errors of the trial court were hotly argued, respondents insisting that the trial had been in all respects fair and that the rulings on the evidence and the charge to the jury were correct.[17] The court below never passed upon these points, choosing instead to accept the alternative argument of appellees (respondents here) that the verdict could properly have been directed. For this reason, petitioners' request at the conclusion of their brief (page 127) that the action be remanded "to the District Court for retrial" is obviously incorrect; there has been no determination, as yet, that there was any infirmity in the trial which petitioners have already had and which resulted in a jury verdict against them.

What the court below did was to determine that no error, if found, could affect the judgment because the plaintiffs had, in any event, failed to prove their case. This was a course clearly open to any court of appeals. It has been repeatedly held that where a defendant is entitled to a directed verdict, errors in the charge to the jury,

[17]In this regard, the Court is invited to peruse the jury instructions as given (R. 2014-38). The asserted errors of all kinds are immaterial on this review, and cannot be discussed in the present brief. It is enough to say that Appendix A in petitioners' brief gives a totally distorted picture of the trial, and that each of the rulings complained of can only be fairly reviewed by an unhurried examination after briefing and argument.

West v. Camden, 135 U.S. 507 (1890); *United States v. J. E. Bohannon Co.*, 232 F. 2d 756, 757-58 (6th Cir. 1956); *Wonnacott v. Denver & Rio Grande Western R. Co.*, 187 F. 2d 607, 608 (10th Cir. 1951); *Weidenfeld v. Pacific Imp. Co.*, 43 F. 2d 817, 820 (2d Cir.), *cert. denied*, 282 U.S. 890 (1930); or in the exclusion of evidence, *Mecker v. Lehigh Valley R.R.*, 236 U.S. 434 (1915); *Syres v. Oil Workers International Union*, 257 F. 2d 479, 484 (5th Cir. 1958), *cert. denied*, 358 U.S. 929 (1959); *Baird v. Aluminum Seal Company*, 250 F.2d 595, 601 (3d Cir. 1957; or both, *Monolith Portland Midwest Co. v. Western Pub. Serv. Co.*, 142 F.2d 857, 859-60 (10th Cir. 1944); *Nalbantian v. United States*, 54 F.2d 63, 64 (7th Cir. 1931), *cert. denied*, 285 U.S. 536 (1932), are an insufficient ground for reversal upon appeal. In none of these cases did the winner of the jury verdict move for judgment notwithstanding the verdict or cross-appeal. In fact, a fully successful party has no right to appeal. *Lindheimer v. Illinois Bell Tel. Co.*, 292 U.S. 151 (1934); *Public Serv. Comm. v. Brashear Freight Lines*, 306 U.S. 204 (1939).

The other respect in which the principle is here important is that this Court, in turn, is not bound by the reasoning of the court below. The respondents propose to argue hereinafter that the Court of Appeals was right for a number of factual and legal reasons in addition to those specifically mentioned in its opinion. The lower court, for example, does not reach the point of discussing petitioners' totally inadequate showing of loss of sales and profits. That will be urged hereinafter as an independent ground for affirmance. The lower court does not reach the question of the competency and sufficiency of

the evidence relating to Canada but, instead, decides that the evidence is not cognizable as a matter of law. Respondents will discuss both points. All of these matters, being encompassed by the language of the writ of certiorari, are properly before this Court.

Directly in point on this aspect of the review is one of the cases on which petitioners particularly rely. In *Story Parchment Co. v. Paterson Co.*, 282 U.S. 555 (1931), this Court held that it should consider upon the merits respondents' additional ground for sustaining the judgment below, which was that there was no evidence of an anti-trust violation. Petitioners insisted that such ground was not open for consideration because there was no cross-petition for certiorari, but this Court disagreed, saying (282 U.S. at 560) "respondents do not invoke that ground in order to overthrow the judgment below, but to sustain it; and this they may do."

II

THE PETITIONERS' ADMISSIONS AT TRIAL AND THEIR CONTEMPORANEOUS RECORDS SHOW CONCLUSIVELY THAT THEY HAD ADEQUATE SUPPLIES FOR EACH OF THEIR VENTURES AND TERMINATED SUCH VENTURES FOR OTHER REASONS.

The Apex Contract Was Terminated for Reasons Not Related to the Case.

Continental's contract with the Apex Smelting Company, which lasted from July, 1938, to July, 1942, was terminated by Apex. The reasons are spelled out in detail in Apex's letters at the time and corroborated by

the testimony of Bayer, an Apex officer called by respondents. Petitioners called no witness at all from Apex.

It was undisputed that Apex throughout had trouble with the aluminum thermic process favored by Leir. It required aluminum of high purity which was difficult to get in 1941 and 1942 (R. 873, 1217-18, 1280-81). As Leir summarized it in his letter of February 16, 1942 (Exhibit V-2-A, R. 1179, 1176):

> "A good part of our losses resulted from the use of aluminum-tin foil scrap."

Recoveries were far below those expected. Apex wrote in June, 1942 (Exhibit V-2-B, R. 1189, 1187). As Bayer put it, Apex had to learn "by our own experiments" (R. 1349-50). Apex had additional major difficulties with vanadium fumes and dust which, as they wrote Leir, had injured their employees (Exhibit V-2-G, R. 2528, 1291):

> ". . . our men are now organizing and the men that we have had in the Ferro Department refuse to go back into it as they claim that it is injurious to their health."

As a last straw, Apex, in October, 1941, suffered a serious fire in its ferro alloy department which prevented all operations for at least a month (Exhibit V-1-S, R. 1154-57).

A major and additional reason for Apex's difficulties was that it had invested only $30,000 or $40,000 in the alloy project (R. 1346) while Continental invested nothing at all (R. 1211-14). This amount Apex conceded to have been "greatly inadequate for a sound and efficient business" (Exhibit V-2-C, R. 2523, 1194) and Leir more than agreed. He wrote in February, 1942, that Apex had "never

had the necessary equipment" and concluded (Exhibit V-2-A, R. 1179, 1182, 1176):

> "It is not our fault that you treated the Ferro department as a stepchild from the very beginning."

At the trial Leir was asked if that letter constituted "a very fair statement of the situation," and he replied, "I consider it as an excellent letter" (R. 1185).

By late 1941, Apex was ready to abandon the stepchild altogether. Its hands were full with its regular business of remelting aluminum which it felt was "so vital a part of the defense program" and upon which it wished to "concentrate all of our efforts and available space" (Exhibit V-1-S, R. 1154-55). Leir explicitly recognized this at the time (Exhibit V-2-A, R. 1176):

> "It appears that the main reason for your wanting to get rid of the ferro business is your need for space for other essential war production."

The final and decisive fact was that the Apex ferro alloy department had steadily lost money. Leir made his gross selling commissions, while Apex lost about $8,000. In the end, Apex elected to terminate the contract on that specific ground (Exhibit V-2-B, R. 1190-91, 2520-22, 1187; R. 1295, 1347-48).

These were the specific reasons given for the termination in the contemporaneous correspondence of Leir and Apex relating to that termination. Throughout these letters there is not a word about any inadequacy of supplies.

Continental Had Adequate Supplies Throughout the Apex Period.

For the limited production actually undertaken by Apex, supplies were more than adequate throughout the contract

period, despite a growing and general vanadium shortage. The opinion below emphasizes the failures of Continental to request vanadium oxide from respondents, particularly during the last year of the venture (R. 2576) and also notes their failures to buy other available supplies.[18] Both aspects of the evidence are significant, and will be discussed below.

In 1939, Continental's first full year in business, EMS, a Carbide subsidiary, sold it approximately half its supplies (R. 1228-33, Exhibit U-5-L, Vol. IX, R. 588-90, R. 1229; Exhibit 119, R. 2212, 1090; Exhibit 120, R. 2213, 1094).[19] Continental requested no more oxide from the Carbide companies during the entire life of the Apex contract other than on one occasion in June, 1941; Electromet declined that offer because it needed the material (Exhibit 77, R. 776-78).[20]

VCA, in 1939, offered to sell to Continental for export, but this offer Continental itself refused, although it was exporting at the time (R. 1966-67; Exhibit 132, R. 2258, 1245). VCA declined two offers from Continental, later in

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[18]R. 2575: "If such a shortage did exist, it is hard to understand why Apex turned down proffered arrangements with the Blanding mine or with Morrison, both of which could have furnished Apex a considerable quantity of oxide."

[19]The material was purchased through one Poliakoff, but the books indicated that Continental paid EMS directly (R. 1228). Leir gave his opinion that he could not have gotten the material directly (R. 1228) which petitioners stress in their brief (page 104), but there is no evidence that he tried to do so, or that EMS refused to sell to him at the time, or that the intercession of Poliakoff made any difference.

[20]Continental made no request in October, 1940, as stated in petitioners' table in their brief (page 59) but rather Apex wrote to say it understood from an EMS salesman that EMS was taking no new accounts (Exhibit 128, Vol. VIII, R. 189-90, R. 1240).

1939 and 1940 (Exhibit 132, R. 2260, 1245; Exhibit 63, R. 779-80), because their own supply position was becoming acute, as their contemporaneous letters show (Exhibit 56, R. 1956-57, 326; Exhibit 166, R. 1899-1900, 1970). Continental made no further requests to buy from VCA during the life of the Apex contract.

Thus at the beginning, Continental met with no refusals but rather with a sale and an offer to sell from VCA and the Carbide companies. Thereafter, those companies were using their vanadium oxide themselves, as Wolf conceded at the trial (R. 870):

> "The Court: And they did use the vanadium oxide in the manufacture of the ferro-vanadium for steel.
> The Witness: That is correct; that they used themselves."

Whether respondents could have furnished further supplies in the later stages of the Apex contract is doubtful; they were then reporting to the OPM that they had no excess supplies (Exhibit 132, R. 2265, 1245). But in any event Continental and Apex, as the court below pointed out, never asked them.

The reason was that the other supplies for the Apex contract were more than adequate.

Throughout the contract period, Apex had a regular and adequate supplier in the Shattuck Chemical Company (North Continent Mines) which Burwell testified "had far more ore than the Vanadium Corporation [V.C.A.] did" (R. 509). There is nothing in the record to show that Shattuck was unwilling to mill it and sell it, and in fact Leir so suggested to Apex in December, 1941 (Exhibit 127, R. 2222, 1240):

> "Regarding Shattuck, we suggest that you approach them and offer them a contract for larger monthly quantities than they have at present from you, in order to induce them to increase their output."

Apex, as discussed hereinafter, did not believe in large contracts and feared an oversupply, and so declined the suggestion. Even as it was, Shattuck supplied the bulk of Apex's oxide (Exhibit 118, R. 2210, 1066-68), and this supply continued uninterrupted.

And there were many other sources.

At the inception of the contract, there was, of course, no immediate need for supplies, since the Apex Thermit Department was not prepared to operate. Leir agreed in his testimony that he could have stockpiled supplies of vanadium oxide for use in connection with the Apex contract, but he thought it would have been "irrational" to do it (R. 1233). Thus, from July, 1938 to July, 1940, when the embargo on exports took effect, Leir simply exported the bulk of the vanadium he purchased (R. 1233-34).

Even for its export sales Continental had adequate supplies. In July, 1939, it canceled an order with Vitro Manufacturing Company for 6,000 pounds of oxide because of a $60 or $70 expense item and arranged to buy it elsewhere despite Vitro's objections (Exhibit U-5-K, R. 2474-84, 1219). Leir did not recall that he ever purchased from Vitro thereafter (R. 1222), although Vitro was one of the big producers (Exhibit 34, R. 199-201, 198).

Even after Apex had started production, Leir continued to sell available supplies to persons other than Apex. Between September 1940 and December 31, 1940, Con-

tinental sold 28,000 pounds of vanadium oxide to other customers, and in early 1941 made one additional sale of 1,858 pounds (Exhibit U-5-N, Vol. IX, R. 591; 1236-37). Leir testified that he "was not concerned at that time about getting regular supplies from others" (R. 1237).

Specifically, Leir did not expect Apex to reach full production until January 1941, and he predicted he would have 20,000 pounds of vanadium oxide per month from Blanding and the same from Rifle, as well as further amounts from other sources. Accordingly, he arranged to resell the first 20,000 pounds received from Blanding in August 1940 (Exhibit V-1-J, R. 2499, 1127; R. 1127-31). He testified that he was reluctant to buy oxide for the Apex operation until the installation was ready (R. 1138).

Apex had a definite policy at the time of not stockpiling supplies or committing itself in advance to take them. As Bayer put it, "We never enter into any long term contracts" (R. 1353). So far as vanadium was concerned Apex was not interested even in maintaining a one month supply of oxide on hand; whatever brief periods Apex may have had with a low inventory were directly attributable to this policy (R. 1276-77).

Apex flatly refused on four separate occasions to make agreements which would have secured for it much greater supplies of oxide on a regular and sustained basis. Thus:

(1) Blanding Mines wrote to Continental in the fall of 1940 that it could expand its capacity to 25,000 to 35,000 pounds per month but it needed $20,000 in capital together with an assurance of a long term contract (Exhibit V-2-I, R. 1698-99). Blanding's output at the time was already 12,000 to 15,000 pounds per month (Exhibit

131, R. 2233, 1242) about as much as Shattuck's (R. 1208) and Apex was only buying about half that much (Exhibit 118, R. 2209, 1066). Thus, when Leir suggested that Apex and Continental furnish $10,000 for the expansion, $7,500 of this amount to be put up by Apex (R. 1153), Apex characteristically refused. Leir accordingly had to reply to Blanding that the associates "cannot consider participating in the financing of your mill" and that they could only offer a three months output contract (Exhibit V-2-I, R. 1699-1700, 1698). Three months was not what Blanding had in mind, according to Hayward Bigler, President of Blanding at the time, and, there being no assurance of either financing or assured sales, Blanding did not expand and Apex did not acquire the expanded source of supply (R. 1700).

(2) In December, 1940, the Morrison mill, later purchased by Ackermann, was willing to make a contract with Apex for definite future quantities of vanadium oxide and Leir immediately urged Apex to bind itself to do so. Leir estimated that the mill had an available production of 15,000 to 18,000 pounds per month (Exhibit V-1-K, R. 2501, 1133). Apex, however, declined, stating that it wished to match its purchases to its projected sales (Exhibit V-1-O, R. 1140-2).

(3) In the spring of 1941 when Ackermann took over the Morrison mill (R. 1142) he wanted, in particular, an assured customer for his products. Leir again suggested that Apex contract to buy through Continental "Ackermann's output up to, let us say, 15,000 pounds a month" (Exhibit V-1-P, R. 1143, 1142) but Apex felt the matter required a "lot of thought" (Exhibit V-1-P, R. 1144,

1142). Leir does not recall that any such contract was made or guaranteed by Apex (R. 1144-45) and there is nothing in the record to the effect that it was.

(4) In September, 1941, as Pearl Harbor approached, a really large supply of vanadium oxide became available to Apex and Continental. National Vanadium Company offered them an output contract on its entire projected output of 80,000 pounds of oxide a month if Apex would agree to stockpile the material on a two-month anticipation basis (Exhibit V-1-Q, R. 2507-09, 1145). Leir urged Apex to make such a contract (R. 2509-10), but Apex refused to enter into any output contract or any other agreement which was not related to its actual sales (R. 1150). It wrote in part (Exhibit V-1-Q, R. 2512, 1145):

> "• • • we come to the conclusion that we have so frequently expressed to you, and that is to keep ourselves from becoming involved in anything outside of our own operations.
>
> • • • we feel it is entirely too dangerous to tie up for a five-year contract, in fact for any length of time. We would be glad to give them a contract based on the market for Ferro Vanadium and for a per cent of our production."

In the end the most Apex would offer was a preference to the extent of 70 per cent of its requirements. "This is all we could obtain" wrote Leir to National Vanadium (Exhibit V-1-R, R. 2514, 1151). He offered, however, to market National's "surplus" vanadium (R. 2514) and he sought to assure the company that Apex could in the end handle it all (R. 2515):

> "P.S.—You will have noted from your discussion with Apex; that they are very conservative. It is

our personal opinion that the consumption of Ferro Vanadium will go up so very much that eventually every pound of your production will go to Apex. However, *you will appreciate their attitude to their present suppliers.*" (Emphasis added).

Thus no contract was ever made.

Apex actually complained of an oversupply to Leir in its letter of October 25, 1941 (Exhibit V-1-S, R. 1155-57), saying that Shattuck had been shipping 12,000 to 18,000 pounds of oxide a month to them for some months (R. 1157); that they had sufficient oxide to cover existing orders; that they had arriving an additional supply from the Nisley and Wilson mill at Gateway (R. 1156); and that they did not wish to continue the contract (R. 1155-57). The letter concluded (R. 1157):

> "We also believe that we should immediately notify all our shippers of raw materials to discontinue making shipments to us until further notice."

Leir, who was by this time interested in the possibilities of Van-Ex, telephoned Apex immediately to prevent the discontinuance. On October 27 he wrote a letter of confirmation (Exhibit 129, R. 2223, 1240):

> "As arranged, you will *not* notify the various suppliers of raw materials to stop shipments, especially since all the raw material received can be easily disposed of under present circumstances."

That is, he thought, he could find a market for the excess supplies, whether they were needed for the Apex contract or not. Leir prevailed, with the result that by the end of 1941, Apex had 45,827 pounds of vanadium oxide on hand (R. 1306).

From the end of 1941 on, Apex was attempting to terminate the contract, and it bought as little as possible. Leir wrote Apex in January, urging it to buy more from Shattuck, to offer to buy from Monticello, and to speed up deliveries from Nisley and Wilson (Exhibit 127, R. 2222, 1240). Apex did none of these things; in fact, it was unable to accept some 12,000 pounds of oxide from Nisley and Wilson which they had ready for shipment. As Frank Nisley, a witness for the plaintiffs, testified (R. 669):

> "We had been shipping to Apex Smelting Company, and I believe they had a fire in their plant and were unable to take the product at that time * * *."

On February 14, 1942, Apex notified its suppliers, including Shattuck, to stop their shipments (R. 1283-84, Exhibit V-2-E, R. 1284). Apex then had on hand 50,000 pounds of vanadium oxide (R. 1331, 1342). Leir testified that he could not remember whether shipments were in fact immediately stopped, *but he admitted that supplies were available at the time* (R. 1175):

> "Q. Why, I am sure you didn't approve of it, but did they not at that time notify the shippers, Apex notify the shippers to stop shipping their ore?
>
> A. I couldn't tell you this.
>
> Q. You don't remember that?
>
> A. No.
>
> The Court: At that time, now Apex was able to get ore?
>
> A. Yes."

When in March Apex finally agreed to a temporary continuance of the contract it again warned Leir of the dangers of an oversupply. Leir had demanded that Apex

agree to convert, through May, all of the oxide he could secure from Blanding, Nisley and Wilson, and Shattuck (Exhibit 122, R. 2217, 1096):

> "Not knowing how those quantities may be increased, it is difficult for us to make a commitment with the limited capacity that we have."

Bayer, the only Apex witness, had no difficulty in answering the ultimate question. His testimony is clear-cut (R. 1287):

> "Q. Well, were you influenced in closing your ferro-vanadium business by the fact that you could not secure vanadium oxide?
>
> A. No, that wasn't the reason for closing."

The reasons, as he testified, were those specified in the contemporaneous correspondence (R. 1290, 1361-62), and they had nothing to do with any shortage of supplies, and nothing to do with respondents.

Continental Had Adequate Supplies for Its Van-Ex and Climax Ventures.

Continental produced Van-Ex in the latter part of 1942 and the early part of 1943. It was in February, 1943, that it made its contract with Climax Molybdenum Company for the conversion of a stated amount of vanadium oxide (Exhibit 111, R. 1016-17, 1101-04). There is no evidence that either Continental or Climax requested or suggested a further or additional contract. Thus the issue in both cases is whether, in the year 1943, petitioners had inadequate supplies for their existing purposes.

Leir's admissions alone are conclusive. He wrote in January, 1943, that he had "sufficient raw material"

(Exhibit V-2-C, R. 1194). When asked about this on the witness stand, he testified as follows (R. 1196):

> "Q. Well now, Mr. Leir, then in January of 1943 you had assurance of ample supplies of vanadic acid, is that correct?
>
> A. Yes."

The uncontradicted facts show he was right. Nisley's Government-subsidized plant produced 88,929 pounds of vanadium oxide in 1943, all of which was available to Continental, but Continental bought none of it (R. 1610, 663). It canceled one order in July, ostensibly because it was not in the form of flakes (Exhibit U-3-Z, R. 931-32), although it had previously accepted oxide in the same form from another mill (R. 1612), and although MRC was urging Continental to buy it (Exhibit U-3-Y, R. 929, 928). Then in October, when the Nisley oxide was in flakes and "just what we like best," and available in a quantity of 11,000 to 12,000 pounds a month, Continental still declined to buy (Exhibit U-5-J, R. 2471-73, 1209).

Continental needed little or none of Nisley's supply for the 20,000 pounds of vanadium converted under the Climax contract. It was EMS, the Carbide subsidiary, that supplied half the oxide needed for the Climax contract (Exhibit U-4-D, R. 942; Exhibit U-4-E, R. 943-44).[21] More was supplied by the Durango mill of Metals Reserve Company (R. 924). Thus the only time Continental applied to MRC for oxide, it got it: the *only* evidence is that all of the MRC-controlled supply was available to Continental, as to anyone else.

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[21] This fact is omitted entirely from petitioners' table in its brief (page 59).

Thus when in 1943, Continental made its requests for monthly contracts to VCA and EMS, which they declined on grounds of short supply and prior commitments (Exhibit 40, R. 271, 269; Exhibit 41, R. 271-72, 270; Exhibit 42, R. 272-73, 271, R. 1969; Exhibit U-5-Q, R. 1371-72), Continental was already refusing regular and substantial supplies available to it from its regular supplier, Nisley, and declining to make any other requests to MRC, despite its demonstrated willingness to sell.

Continental Had Adequate Supplies for Its Imperial Contract.

Continental entered into its contract with Imperial Paper & Color Corporation in January, 1944 (Exhibit 110, R. 2175-78, 101-04). Under the arrangement Imperial reserved the decision whether or not actually to proceed, and it never did.

Imperial's decision was made known in December of 1944 (Exhibit 114, R. 1022):

> "• • • with the manpower situation as it is, we could not proceed with the Vanadium project, aside from all other considerations, • • •"

The letter continued (R. 1023):

> "As we see this situation at the present time, one of the principal hazards in entering into the manufacture of V_2O_5 is the *possibility* that you may not be able to get sufficient raw material. Certainly the two major producers at this time have protected themselves against such a *contingency* by controlling primary sources of raw material. *We would not be willing at the outset at least to make an investment of the size necessary to do this*, but nevertheless we must be sure that there are sources from which we can

always obtain vanadium-bearing materials *at a price which will enable us to manufacture and compete with those who control their own supplies.*" (Emphasis added.)

In short, there were two reasons for the failure to consummate the contract from Imperial's point of view: (1) The wartime shortage of manpower, and (2) Imperial's opinion that over the long run it was necessary to have an integrated business to compete successfully. The manpower shortage temporarily was beyond the control of the parties. Acquisition of primary sources of ore and of mills, however, was not. They were fully available, but neither party wished to put up the capital.

The "primary sources of raw material" which Imperial mentioned were there for the taking in mid-1944, and Continental failed to buy. The entire assets of North Continent Mines, which Burwell described as having "far more ore than the Vanadium Corporation did" (R. 509), were up for sale from before the inception of the Imperial contract until August, 1944. Leir had written to North Continent inquiring about its future plans in November, 1943, had gone to Chicago to see its principal officer in February, 1944, and had actually proposed a possible purchase in June, 1944 (Exhibit U-5-I, R. 1205-07), but Continental never in fact made an offer (R. 1207-08). Whether Leir ever told Imperial that North Continent could be purchased outright does not appear in the record.

It was after Leir passed up this opportunity that in August, 1944, Union Mines bought North Continent Mines for the Manhattan Project at the direction of the United States Army (Exhibit U-2-F, R. 484-86).

Leir, in fact, fully conceded at the trial that anyone who wished to commit himself could buy primary sources of raw material at any time (R. 1199):

> "Q. From your investigation of the Colorado Plateau, wouldn't you say it is true that anyone who had sufficient financial resources could have acquired sufficient vanadium ore-bearing bodies and constructed a vanadium plant so as to produce oxide, provided he was sure of a market?
>
> A. Yes, definitely."

But Continental chose not to acquire primary sources of supply, as Imperial was aware.

There was also a vast quantity of ore still in the ground near the Nisley and Wilson mill at Gateway. Burwell in 1941 had estimated the ore reserves "immediately tributary" to Gateway as containing 5,900,000 pounds of oxide (R. 596), and he testified that in later years "there has been about $20,000,000 worth of vanadium-uranium taken out of that area" (R. 291). In 1944, the bulk of this ore was necessarily still there.

Three hundred thousand pounds of it had already been mined and stockpiled by MRC and now was available for milling and sale. Nisley, who was being called into the Navy in the spring of 1944 (Exhibit 76, R. 762-63; Exhibit U-2-Y, R. 736-37) tried to interest Leir in buying the finished oxide. On April 4, 1944, he telegraphed (Exhibit U-2-V, R. 733):

> "Refer our letter March 24 concerning outlet for 300,000 pounds vanadium at rate 600 pounds per day. If you cannot handle above amount at present please wire us amount you could handle."

Leir could only reply "We will give you all possible cooperation * * *" (Exhibit U-2-W, R. 733) and "* * * we cannot give you a definite answer today * * *" (Exhibit U-2-X, R. 735-36).

In July, 1944, Nisley's two partners each wrote Leir again offering the production of the mill, estimated at 15,000 pounds per month (Exhibit U-3-B, R. 741; Exhibit U-2-Z, R. 738) but Leir only replied, "* * * we will keep it in mind should an opportunity present itself" (Exhibit U-3-A, R. 739).

Blanding also had available an output of 15,000 pounds a month which it wished to expand to 50,000 per month. In March, 1944, Continental was asked for financial assistance for the expansion but it declined (Exhibit V-2-K, R. 2533-53, 1715), offering instead only to take such output "as the same shall or may be specified for delivery from time to time" (R. 2538) and offering substantially less than the market price (R. 1722). Leir wrote at the time (Exhibit V-2-K, R. 2552, 1715):

> " * * * frankly speaking, we are not in need of any material from Utah Colorado today, unless we should want to expand our present business considerably."

For the next two months the mill stayed open anyway and produced about 12,000 pounds of oxide, but Continental refused to buy it (R. 1726). In the latter part of 1944 the mill was allowed to revert to the Defense Plant Corporation (R. 1728-29).

These supplies were minor, however, compared to the huge MRC stockpile, about 2,500,000 pounds of oxide (Exhibit U-4-T, R. 969-70) of which the Nisley mill's pro-

duction (offered to Continental and refused) formed a small part. MRC had it available for Continental's purchase "all in the form of flakes" and in any "given quantity" (Exhibit U-4-R, R. 964). There is nothing in the record to show that Continental bought any of it except for one shipment of 4,353 pounds (Exhibit U-4-R, R. 964-65).[22]

Throughout the period of the Imperial contract supplies were available from appellees as well, but Continental bought very little.

It purchased a small amount of oxide from EMS in May, 1945 (Exhibit U-4-V, R. 974-5; Exhibit U-4-W, R. 976). From the beginning of 1946 onward, Continental had requirements contracts from EMS for unlimited amounts (Exhibit U-4-X, R. 2459, 977; Exhibit U-4-Y, R. 981-82; Exhibit U-4-Z, R. 982-83; Exhibit U-5-A, R. 983; Exhibit U-5-B, R. 984; Exhibit U-5-H, R. 2469, 997), but its actual purchases were nominal.[23]

Continental made no offers to buy from VCA in 1944, or in 1945, or in 1946. In February, 1947, VCA offered to sell a carload of oxide a month to Continental at its regular contract price of $1.10, but Continental advised that "our buyers" would not buy at more than $1.00 to $1.05 (Exhibit 78, R. 781-83). There is no evidence that

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[22]Imperial also turned down huge foreign supplies of vanadium, although Continental professed to be interested (Exhibits U-3-F through U-3-O, R. 879-903, 1204-05).

[23]Petitioners make the point in their brief (page 63) that the contracts were for "domestic" manufacturing requirements, but they failed to buy for domestic use, and in fact bought a small amount for export (Exhibit U-5-E, R. 2467; Exhibit U-5-F, R. 2468, Exhibit U-5-G, Vol. IX, R. 585, R. 991-98).

Continental ever met VCA's regular price at the time or thereafter, or made any further overtures to VCA.

Faced with the plain evidence that Continental and Imperial refused supplies from the respondents, apparently available in adequate and steady quantities, Wolf could only testify that refusals to sell were not his complaint after all (R. 979-80).

> "Q. (By Mr. Archer): Mr. Wolf, haven't you just testified that one of your complaints here is that up to 1949 the defendants had refused to sell you vanadium oxide?
>
> A. The defendants have not—no, have not refused."

In short, at the trial the claim of "elimination" collapsed in the face of petitioners' own records. Petitioners left the business when supplies of all kinds were in vast abundance. There was ore in the ground, ore already mined and oxide already milled, all glutting the market. Continental could have flooded Imperial with supplies, could have invested as much as it chose in primary or secondary sources of raw material. It chose to do none of these things.

III

THERE WAS NO EVIDENCE OF THE CLAIMED INTERFERENCE WITH PETITIONERS' BUSINESS RELATIONS.

There Was No Evidence of Any Interference With Apex.

The claim that respondents interfered with petitioners' relationships with Apex is based solely on VCA memoranda, and these give no support to the claim. The only other evidence was from the VCA witnesses and from

Bayer of Apex, and that testimony was all to the effect that there was no interference.

Petitioners introduced correspondence and memoranda of VCA in February, 1942, showing that after Apex had quit the business VCA had been approached by Apex to buy the equipment of the ferro alloy department and that VCA was considering it (Exhibit 62, Vol. VIII, R. 163-69; R. 671-76, 1331-35). VCA knew nothing about the available equipment, however, prior to Apex's final decision in January to go out of the business (R. 1283, 1285), and there is no evidence whatever to show that VCA initiated the discussions. Apex offered its entire equipment to Continental that spring, but Continental refused to buy it (Exhibit 122, R. 2215-16, 2221, 1096; Exhibit V-2-F, R. 1288-90, 1337-38). Thereafter, Apex again offered it to VCA (Exhibit 130, R. 2225-28, 1241; Exhibit V-2-H, R. 2530-32, R. 1359-60). VCA finally bought one item, the magnesite used for the Apex crucibles (R. 1286-87, 1325), and refused the rest (R. 1361). Apex apparently waited until the following September before disposing of the remaining equipment, while Leir himself made efforts to sell it to third parties (R. 1289-90). Thereafter, according to Bayer's recollection, Apex ultimately abandoned the remainder (R. 1337-38).

There was no evidence whatever, contrary to petitioners' assertion in their brief (page 47), that Apex agreed to stay out of the vanadium business in return for VCA's purchases. The memoranda on which petitioners rely are precisely to the contrary.

The first states that as of February 20, 1942, "they [Apex] have decided to go out of the vanadium business"

and "would like" to dispose of their equipment (Exhibit 62, Vol. VIII, R. 163, R. 671). The memorandum specifies (R. 163-64):

> "Mr. Christiansen further stated that they had been contemplating going out of the Vanadium business for some time and their definite decision was reached for two reasons. First, that they had a fire in this department of their plant and secondly, that the sales contract which they had with Mr. Leir, President of the Continental Corporation, had not worked out very well."

Apex's determination to quit the business was temporarily suspended by Leir's threats (Exhibit 62, Vol. VIII, R. 167-68, R. 671), but within two months Apex "had" come to an agreement with Leir, "had definitely concluded" to go out of the business, and their equipment was "now" for sale (Exhibit 62, Vol. VIII, R. 168, R. 671). Apex was then "anxious to move these items as quickly as possible" because it was "greatly in need of space" for its aluminum business (Exhibit V-2-H, R. 2530, 1359).

There is not a suggestion anywhere in the memoranda that VCA influenced the Apex decision at all or came to any understanding with Apex until after Apex had reached its final decision to quit the business.

There Was No Evidence of the Claimed Interference With Climax and With Continental's Business in Canada.

Petitioners' claims of interference with their relationships with Climax Molybdenum and with their Canadian business depend on the same evidence, which is an asserted conversation of Wolf with one M. D. Arrouet. There is no other evidence of any kind relating to Climax.

The only other evidence concerning petitioners' business in Canada is that some months prior to the Arrouet conversation, the Electro Metallurgical Company of Canada, a Canadian corporation and a Carbide subsidiary, was appointed agent of the Government of Canada to buy vanadium for all the Canadian steel mills and, at that time, chose to buy from suppliers other than Continental; thereafter, it continued to decline Continental's offers of sale except on one occasion.

Such evidence was all excluded, with the exception of certain preliminary questions, upon the ground (to be discussed hereafter) that the acts to be shown were not cognizable under the antitrust laws and upon the further ground that the Arrouet conversation was incompetent.[24] Respondents here propose to support the alternative ground, and to demonstrate that the evidence was wholly incompetent and non-probative. The issue rests upon the sufficiency of the offer of proof made at trial (R. 808-51), together with the testimony actually permitted in connection with the offer (R. 840-50).

Two established principles are pertinent as to the offered evidence so excluded:

(1) It is the offeror's burden to make error appear by means of his offer,[25] and accordingly the offer must show the competency as well as the materiality

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[24]R. 847-48: "The objection will be sustained. The statement of a mere employee would not be binding upon a corporation unless it is shown he had authority to act."

[25]*Origet v. Hedden*, 155 U.S. 228 (1894). See *Cropper v. Titanium Pigment Co.*, 47 F.2d 1038, 1042 (8th Cir. 1931).

of the evidence[26] and also its probative value, or the exclusion will not be prejudicial;[27]

(2) Whether Arrouet's statement be regarded as an admission or as a verbal act, the issue of admissibility is a preliminary question for the court to determine, and accordingly no jury question was or is presented.[28]

It follows that general statements by petitioners' counsel that respondents in New York "directed" or "controlled" the events in Canada are to be disregarded; general statements that "Carbide" threatened petitioners are to be disregarded; general statements that Arrouet was "very important," or that he was authorized or designated to speak, are to be disregarded. It is the specific proof offered that counts, and if petitioners had none, then the offer of proof was properly rejected and cannot be error.

Arrouet was supposed to have said that Continental should stay out of the vanadium business and that Climax should too, or else the Carbide companies might take reprisals (Exhibit 109 for ident., Vol. IX, R. 467-68, R. 834, R. 828-29). Counsel for petitioners sought to prove

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[26] *Herencia v. Guzman*, 219 U.S. 44, 46 (1910); *Gantz v. United States*, 127 F.2d 498 (8th Cir. 1942); *Hoffman v. Palmer*, 129 F.2d 976, 994 (2d Cir. 1942), *aff'd*, 318 U.S. 109 (1943).

[27] *Talon, Inc. v. Union Slide Fastener, Inc.*, 266 F.2d 731 (9th Cir. 1959); *Herman Schwabe, Inc. v. United Shoe Machinery Corp.*, 297 F.2d 906 (2d Cir. 1962); 28 U.S.C., Sec. 2111; Rule 61, F.R.C.P.

[28] *Cliquot's Champagne*, 3 Wall. (U.S.) 114 (1865); *Gila Valley Ry. Co. v. Hall*, 232 U.S. 94 (1914); *Massei v. United States*, 241 F.2d 895 (1st Cir. 1957), *aff'd per curiam*, 355 U.S. 595 (1958); *McDonald v. Coop. Restaurant, Inc.*, 64 F.2d 383 (App. D.C. 1933); *Congregation Ohab Shalom v. Hathaway*, 104 N.E. 379 (Mass. 1914); 9 Wigmore, *Evidence*, Sec. 2550 (3d Ed. 1940).

the conversation solely through the testimony of Martin Wolf and through correspondence and memoranda not written by Arrouet (R. 808, R. 826-29, Exhibits 80-109 for ident., Vol. IX, R. 4384-6s, R. 834), and accordingly the key issue of admissibility was as to Arrouet's authority from respondents to say or do what he was alleged to have done. Counsel for respondents specifically objected to the testimony on the ground that no authority was shown (R. 846).

Petitioners' counsel sought to meet the objection of lack of authority in two ways: (1) by the testimony of Martin Wolf as to his understanding of Arrouet's position; (2) by letters and testimony assertedly showing that Wolf was referred to Arrouet by persons authorized to do so. These theories will be considered in order.

It was, and is, conceded that Arrouet at the time was an employee of Electro Metallurgical Company, an American corporation and a wholly owned subsidiary of Union Carbide, which was named but not served as a defendant below. It was also stipulated that Arrouet was not an officer of Electro Metallurgical Company (R. 827). There was no contention that Arrouet was employed by any respondent company, or was connected with any respondent at all, other than as an employee of a subsidiary or affiliate.

As to the scope of Arrouet's responsibility, Wolf's hearsay testimony was (R. 847):

> "I didn't know what his exact position was. I knew he had no title, but he had a very big office."

Wolf further testified by hearsay that Arrouet was "involved in certain purchasing operations, as far as I

learned" and that it was almost "raw material procurement in a vaster sent (sic.)" (R. 849-50). This was all of the testimony.

In this testimony then, even if the hearsay is credited, there is no showing that Arrouet was a managing agent, much less an executive officer, or that he had any business making statements about the policy of his company or any parent or affiliated company. There was no indication that he was concerned in his work with the export of oxide to Canada, or with the vanadium business at all, or with the molybdenum business, or with the relationship of any Carbide company to any other company. The offer of proof was merely that he was an employee engaged in purchasing for Electro Metallurgical Company in New York.

The employee status so shown carries with it no power to make statements concerning company policy or to make admissions on behalf of the employer. *Winchester & Partridge Mfg. Co. v. Creary*, 116 U.S. 161 (1885); *Washington Gas Light Co. v. Lansden*, 172 U.S. 534 (1899); Restatement (2d Ed.) *Agency*, Secs. 33, 34, 286, 288 (1958). So it has been consistently held that hearsay evidence of threats made by an agent with limited authority is inadmissible. *McDonald v. Coop. Restaurant, Inc.*, 64 F.2d 383 (App. D.C. 1933); *Nichols v. Republic Iron & Steel Co.*, 89 F.2d 927 (5th Cir. 1937); *United States v. Konovsky*, 202 F.2d 721 (7th Cir. 1953). Directly in point is *Flintkote Co. v. Lysfjord*, 246 F.2d 368 (9th Cir. 1957), *cert. denied*, 355 U.S. 835 (1957) in its discussion of inadmissible threats by unauthorized persons in what is described in the opinion as "Conversation No. 1." The converse is

Johnson v. J. H. Vest Lumber Co., 117 F.2d 53 (8th Cir. 1941) where similar statements made by "managing agents" were held admissible.

Thus Arrouet had no authority, by virtue of his mere employment, to make policy statements on behalf of his employer, Electromet, and none at all on behalf of the respondents Carbide, USV and VCA.

As to the supposed reference of Wolf to Arrouet, Wolf again was permitted to testify directly (R. 847-50). He said that he had been "directed" to see Electromet in New York (R. 847) but did not say who had directed him. He said "we were told" to send a letter to Mr. Walker of Electromet, but again he did not say who did the telling. Petitioners' Exhibit 80, however, specifies that it was Mr. Bateman who "suggested" that Continental see Electromet (Vol. IX, R. 438, R. 834). Bateman was no employee or agent of any respondent or subsidiary, but in fact was the Metals Controller of Canada. Thus there was no reference by Electromet of Canada to Electromet in New York.

Wolf accepted the unauthorized suggestion and wrote to Walker of Electromet. He testified that after that he got a telephone reply from Arrouet and went to see him (R. 848-50). From this, petitioners argue that Arrouet was in effect designated to speak on behalf of Walker and assume that Walker, as a Vice President of Electromet, had authority to designate him.

But there is no showing at all that Walker had anything to do with exports to Canada, or purported to designate Arrouet to say anything. Presumably, he asked Ar-

rouet to find out exactly what Continental wanted, and why it was directing its complaint to the American company at all, and then to report back to him. If there is any more positive inference, it is that Walker told Arrouet specifically to refer Continental back to the Canadian company, *for this is just what Arrouet did*, according to petitioners' next letter, addressed to Arrouet (Exhibit 81 for ident., Vol. IX, R. 439, R. 818):

> "You requested us to contact the Electrometallurgical Company in Welland[29] and submit our offer to them."

Continental so understood it, for thereafter it corresponded exclusively with Electromet of Canada and the office of the Metals Controller (Exhibits 82-108, Vol. IX, R. 411-466). In other words, the *only* indication from the correspondence is that Arrouet had no authority at all, and neither did Electromet in New York, and both Arrouet and Wolf were fully aware of these facts.[30]

It was not until five months later that Wolf saw Arrouet again, according to his memorandum, and *at that time* assertedly received the threats complained of (Exhibit 108 for ident., Vol. IX, R. 467-68, R. 826). Continental had not in the meantime been told to see Arrouet again by anyone, so far as the proof shows. Thus at the time of the supposed threats there was no reference or designation

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[29]Welland, Ontario, the address of the Electro Metallurgical Company of Canada.

[30]Even if Wolf were not fully aware of Arrouet's lack of authority, the result would be the same. Actual, not apparent, authority is required before an agent's statements are imputable to the principal. Restatement (Second), *Agency*, Sec. 286, comment b.

by anyone. Wolf simply chose to see someone whom he had previously met in Electromet, who had already told him that he should address any complaints to the Canadian company.

Moreover, even assuming that there was any reference, there was no evidence at all as to what it was. An authorization by reference or designation is of course limited to the subject matter that the agent is expected to discuss. *Allen v. Killinger*, 8 Wall. (U.S.) 480 (1869); *Insurance Co. v. Mahone*, 21 Wall. (U.S.) 152 (1874); *Garey v. Kelvinator Corp.*, 271 N.W. 723 (Mich. 1937); 4 Wigmore, *Evidence*, Sec. 1070 (3d Ed. 1940). The fact that the agent later exceeds whatever authority he had does not, of course, prove that he had it in the first place; even if he declares he has it, his authority cannot be so proved by hearsay. *Durant Motor Co. v. Georgia-Florida Motor Co.*, 18 F.2d 95 (5th Cir. 1927); *Hotel Atlantis, Inc. v. Peerless Casualty Co.*, 285 F.2d 257 (2nd Cir. 1961); 1 Mechem, *Agency*, Sec. 285 (2d Ed. 1914). Here, Arrouet did not even purport to be speaking with anyone's authority, so far as the offer of proof shows. Thus there was a total failure to show that Wolf was referred to Arrouet for a statement of policy, or a threat, or anything of the kind he is claimed to have said.

To sum up: Arrouet was in fact a mere employee without actual or apparent authority to say anything about vanadium exports. If he said what is claimed, he did so without the knowledge or approval of his employer or of anyone else, including the respondents. This is the total offer of proof. It follows that under no theory was the Arrouet conversation admissible.

For much the same reasons, had the conversation been admitted, it would have proved nothing. If a responsible officer of a company utters threats, that may well constitute circumstantial evidence tending to prove that some action was taken or some result followed. But that an employee without power to act or make policy utters such statements is, if shown, entirely meaningless. His opinion, as such, has no independent significance, for he is not in a position to translate that opinion into action.

Here, of course, there is not the slightest evidence that anyone in authority, or anyone else at all, even knew of Arrouet's supposed threats, much less approved them or acted upon them. No one is shown to have communicated with or troubled Climax in any way. No one from Electromet or Carbide in New York is shown to have communicated with Electromet of Canada with regard to Continental or anything else, or otherwise to have influenced the decision of that company. Of course, it cannot be presumed, assumed, or inferred that it did so merely because of the bare corporate relationship.[31] Nor does it aid the inference that, five months *after* the Canadian company acted, a purchasing agent in New York was heard to utter unauthorized opinions or threats.

The result is that there was no evidence, competent or incompetent, that anyone interfered with Climax or Continental's business in Canada.

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[31]No evidence was offered that Electromet of Canada had officers or directors in common with those of any other Carbide company, nor is there any other indication of parental control or direction, or a principal and agent relationship. The single fact of ownership of one corporation of another has never been regarded as sufficient to show any of these things. 1 Fletcher, *Corporations*, Sec. 43, pages 157, 158, Note 70, and cases cited.

The offer of proof was totally lacking in still another respect. If there had been a wrongful interference which resulted in the loss of a customer, it still would be incumbent on petitioners to show that the loss injured them. But petitioners' whole theory was that they were short of *supplies*, and that they could sell all they could produce. Wolf so testified (R. 845), and these are the claims of the complaint (paragraphs 34, 35, R. 18-19). All of their attempted proof of damages was based on the hypothesis that they could not get enough supplies and could sell all that they produced (R. 852-63, 1107-13). If this was so, if customers were clamoring for vanadium which Continental could not produce for lack of supplies, then the loss of Atlas Steels would mean nothing. Continental would readily sell to someone else. Petitioners in fact carefully avoided showing that they could *not* replace the lost customer (if this were indeed the fact), for to make such proof would have destroyed the remainder of their case.

The result is that the claim of interference is irrelevant here, even if the fact of interference were shown by the offer. Petitioners chose not to couple with their offer as to interference any offer as to damage resulting from the interference, and instead relied throughout the trial upon the opposite theory of damages. The claim of interference is therefore not related to their showing of the fact or amount of damage, and is immaterial here.

For all of these reasons, the offered evidence has no bearing upon this review.

There Was No Evidence of Any Interference With Any Plan to Build a Mill.

Petitioners make a claim for the first time on this review that there was an interference with their forming an association for the purpose of "building a mill" by means of respondents' acquisition of the Durango mill (pages 61-62).

Respondents are at a loss to understand the statement of the claim or what the claim is supposed to be. The cited evidence concerning the claim (Exhibit V-2-K, R. 2533-44, 1715, 1775-77) shows that Continental and Blanding were then discussing the enlargement and reopening of the existing Blanding mill, together with a requirement or output contract, but that Leir was not interested in committing Continental financially or otherwise, and the plan collapsed. Incidental to this negotiation, they discussed formation of an association of producers, the apparent purpose of which was to fix prices (R. 2549-50). The only reference to "building" a mill, made by Bigler of Blanding on cross-examination, clearly referred to the proposed enlargement of the existing Blanding mill (R. 1775-76).

How the respondents' acquisition of the Durango mill could possibly have affected any of these plans at Blanding is never indicated in petitioners' brief and certainly does not explain itself.

IV

PETITIONERS AVOIDED AND OMITTED ALL PERTINENT EVIDENCE RELATING TO THE ASSERTED LOSS OF SALES AND PROFITS.

A plaintiff in an antitrust action proves his damage by means of two essentially different demonstrations: (a) he proves the *source of the injury*, by showing the adverse relationship of defendants' acts to the characteristics and needs of his own business; (b) he proves a *financial loss*, ordinarily by demonstrating a loss of sales and consequent loss of earnings. The latter aspect of the proof often goes only to the amount of damage, the fact of damage being already clear; but in a case where the injurious impact is itself doubtful, the inquiry into the relevant sales and earnings figures may be decisive.

In the present case not only did petitioners fail to show that any of the respondents' acts affected their business needs, as discussed in the preceding sections of this brief; they also failed to offer relevant evidence, although it was fully available to them, to prove they in fact lost sales and profits.[32] The failure was so total that it is pertinent here: that is, it confirms the fact no damage verdict at all could have been rendered.

There Was No Evidence of Lost Sales.

Petitioners' first and major task was to prove that they had actually lost sales as a result of respondents' acts. Some type of proof was required that their sales would

[32] No attempt was made to prove any other type of damage (loss of capital values, out-of-pocket expense, etc.).

actually have been greater than they were, but for the claimed supply restrictions and the other asserted interferences.

In the present action, the nature of the proof was simple if the fact existed. This was not like a moving picture case where the plaintiff exhibitor has thousands of nameless customers and must show a loss of sales entirely by revenue comparisons. Continental had a total of only about a dozen domestic customers (Exhibit 79, R. 2169-74, 797), and its potential customers were only those relatively few concerns that were engaged in making vanadium-alloy steels.

If any of those customers had been lost because Continental did not have the necessary supplies, the fact would have been spread upon Continental's own contemporaneous records and files, which were fully available. The facts would also have appeared in the customers' files, if those files existed, and, if not, they would be remembered by the customers' employees who were interested in purchasing. In the case of Atlas Steels, the one customer Continental did lose, at least temporarily (for reasons elsewhere described), petitioners had no difficulty at all in proving the fact by their own records.

Yet with that one exception, Continental offered no evidence of any lost sales. No contemporaneous correspondence or records were introduced to prove such losses; no witness from any customer or potential customer so testified on trial or by deposition; even Leir and Wolf never so testified. *There was a total failure to prove lost sales, in a case in which such evidence was fully available.*

What petitioners actually did offer was the following: (1) they offered in evidence their record of net worth and sales in *all products* and their sales in *fluorspar* (Exhibits 123, 124, 125 for ident., Vol. IX, R. 536-40, R. 1097, 1103, 1106) and then asked that the jury be permitted to infer that their sales of *vanadium* should have followed the same trend (Exhibit 126 for ident., Vol. IX, R. 541, R. 1106-07); (2) they offered in evidence computations of sales based upon assumed shares of the market—their market share in 1941 (Exhibit 139 for ident., Vol. IX, R. 543, R. 1261-62), their possible share if they produced and sold at the maximum capacity of Apex (Exhibit 140 for ident., Vol. IX, R. 544, R. 1262-63), and finally their "share" of sales based on arbitrary shares of the market from 1% to 15% (Exhibit 141 for ident., Vol. IX, R. 545-46, R. 1263-64)—and asked that the jury be permitted to guess at some one of the offered figures.

There was no evidence offered that vanadium was materially similar to any of the other materials traded by Continental, or that petitioners' vanadium business would have paralleled its other businesses in any respect. The undisputed evidence showed the opposite. Vanadium was the only product Continental attempted to process (with associates); the others it simply traded (R. 1198-99). Vanadium was also a war industry—in terms of supply, demand, costs, and prices—and there was no evidence offered that the other materials sold by Continental were similarly affected, at the same times, to the same extent, or at all. Vanadium and fluorspar, in particular, as Wolf admitted, "have nothing in common as materials" (R. 853), and in fact were used for different purposes (R. 785,

853). There was no evidence that the trend in sales, prices and production costs of the two materials was comparable at all.

Nor was there any evidence offered that Continental should in the normal course have had or maintained any particular share of the vanadium market, or any share at all. No expert or anyone else so testified. There was no evidence from the people in the steel mills, who, in this case, constituted the entire potential demand. The only evidence was that Continental's share was temporary: Apex was unwilling to invest time or money in the business on a permanent basis; so were Imperial and Climax; and Van-Ex was nothing but black market oxide. Thus none of the offered evidence reasonably supported the assumption that Continental ever developed any permanent customers, much less a specified share of the permanent market. Without this assumption the market-share approach had no rational relation to the case.

The result was that there was no evidence of lost sales.

There Was No Evidence of Lost Profits.

Had petitioners proved lost sales, their next task would have been to show that they would have made a profit on such sales. Without profits there would have been no damage. *Yet petitioners never showed their actual profit experience in any of their vanadium ventures at any time.*

The evidence offered shows the net profit for the *company as a whole* (Exhibit 121 for ident., Vol. IX, R. 469-535, R. 1095-96, 1087-88) and the *gross* profits for vanadium (Exhibit 119, R. 2213, 1090) but that is all. It is entirely unknown what net profits, *if any*, Continental

made in exporting oxide, and in making Van-Ex, and in making and selling ferrovanadium. It was admitted that Apex *lost* money (Exhibit V-2-B, R. 2520-22, 1192), but the jury was never told whether Continental made any net profit on its commissions and, if so, how much.

Thus Leir admitted on cross-examination (R. 1225):

> "Q. Yes. In other words, you have a gross profit figure there from which matters such as overhead, and whatever goes into overhead, have not been deducted?
>
> A. I would say so."

And again (R. 1227):

> "Q. (By Mr. Archer): Now, the 'Commission earned' is, again, a gross commission, is it not?
>
> A. A gross commission, out of which we would pay all our expenses, for traveling and advertising, and so on."

The gross profit figure is thus meaningless.

Once again, the relevant evidence was fully available. Nothing was to prevent petitioners from computing a reasonable allocation of their expenses to apply to their vanadium business and offering the same. Only they could have adduced the figures required for the computation. They never did so. Whether such an allocation would have shown that they were in fact operating at a loss in vanadium no one can tell.

Instead of showing what their net profits actually were and what, by projection of lost sales, the profit might have been, petitioners offered a table showing *respondents'* net profits in both *vanadium and uranium* (Exhibit 20 for

ident., Vol. VIII, R. 217-18, R. 130). No basis for any comparison was shown. The parties were scarcely in the same business: (a) respondents had their own ore, their own mills, their own conversion plants, their own research and sales promotion staffs, while Continental had none of these and was largely a commission broker; (b) respondents were heavily involved in uranium as an integral part of their busines while petitioners were not but, instead, were largely concerned with fluorspar; (c) respondents had a large part in contemporaneous Government programs, with which Continental had nothing to do. Thus the profit figures could not have been compared, even if properly presented, for the businesses were non-comparable. However, the exhibits themselves added to the total disparity. Petitioners' figures, of course, were for *gross* profits in *vanadium;* respondents' were for *net* profits in *vanadium and uranium.* Thus the profit figures were in themselves non-comparable, even if the businesses of the parties had been similar.

The result was that there was no evidence of any kind that Continental had ever made money in the vanadium business or would have done so under any projected set of circumstances.

V

AS A MATTER OF LAW, THE RECORD FAILS TO SHOW ANY INJURY OR DAMAGE.

The foregoing is the record relating to the damage claim. On such facts, there is no legal issue fairly presented unless it can be questioned whether proof of injury is required in a private antitrust case.

The parties agree that the principles expressed by this Court in *Bigelow v. RKO Radio Pictures, Inc.*, 327 U.S. 251 (1946), and *Story Parchment Co. v. Paterson Co.*, 282 U.S. 555 (1931), are controlling, but disagree not only as to their application but also as to what those principles are.

Petitioners, having in mind various statements of Burwell that he and his company intended to injure them, assert at the outset of their legal argument that "* * * intentional acts aimed at the destruction of competitors are actionable by those who are the objects of the restraints" (page 74). The same thought is expressed in various ways thereafter (pages 74-90), the argument appearing to be that, if respondents wanted to put Continental out of business, and performed various acts intended for the purpose, and, if later Continental actually did go out of business, then the fact of damage is shown.

If this argument were accepted, it would destroy the statutory requirement that a damage claimant show actual injury to his property or business. Logically it is indefensible. An act intended to injure may or may not cause injury, and, if it does not, it is totally immaterial that the result intended actually comes to pass.[33] The crux of any damage case is that the wrongful act *in fact* caused the result of which plaintiff complains.

Story Parchment and *Bigelow* do not purport to abrogate the statutory requirement that damage be proved as a fact. In both of the opinions the fact of damage was

[33]The argument has been specifically isolated and rejected before. *Talon, Inc. v. Union Slide Fastener, Inc.*, 266 F.2d 731, 737-38 (9th Cir. 1959).

regarded as clear, and the issues turned on the sufficiency of proof as to the amount. So in *Story Parchment*, where predatory price cutting by all of plaintiff's competitors forced it to lower its own price, this Court held the evidence sufficient to show that petitioner was "injured in its business and property as a result of this unlawful combination" (282 U.S. at 560) and added (page 562):

> "It is true that there was uncertainty as to the extent of the damage, but there was none as to the fact of damage; and there is a clear distinction between the measure of proof necessary to establish the fact that petitioner had sustained some damage, and the measure of proof necessary to enable the jury to fix the amount. The rule which precludes the recovery of uncertain damages applies to such as are not the certain result of the wrong, not to those damages which are definitely attributable to the wrong and only uncertain in respect of their amount."

The same principles were approved in *Bigelow*, the Court reviewing *Story Parchment* and *Eastman Kodak Co. v. Southern Photo Co.*, 273 U.S. 359 (1927), in the following language (327 U.S. at page 264):

> "In each case we held that the evidence sustained verdicts for the plaintiffs, and that in the absence of more precise proof, the jury could conclude as a matter of just and reasonable inference from the proof of defendants' wrongful acts and their tendency to injure plaintiffs' business, and from the evidence of the decline in prices, profits and values, not shown to be attributable to other causes, that defendants' wrongful acts had caused damage to the plaintiffs."

The evidence of discriminations in release dates forced upon plaintiff by his major suppliers, together with a

before-and-after comparison of his receipts, was, the Court found (Justice Frankfurter dissenting), "ample to support a just and reasonable inference that petitioners were damaged by respondents' action" (page 266).

Thus the reasoning of the *Story Parchment* and *Bigelow* cases is that the fact of damage, or causation, must be shown with some reasonable certainty, the exact degree of which is not specified.[34] It must, however, be proved as a fact. It is not to be assumed from the existence of the wrongful acts themselves, nor is it to be presumed, as petitioners further suggest, upon some policy of aiding the enforcement of the antitrust laws. The governing act might have been so framed, but it was not; it specifically requires proof of injury, and the cases proceed accordingly.

There Is No Evidence of Wrongful Acts Having a Tendency to Injure Petitioners.

The review of the evidence contained in the previous sections of this brief may be summarized in a few sentences.

Leir admitted on the stand the adequacy of his supplies in 1940 and early 1941, when he was reselling oxide not needed for the Apex contract. He admitted the adequacy of his supplies in early 1942, when the Apex contract was terminating. He admitted the adequacy of his supplies in early 1943 when the Van Ex production neared its end and he was arranging the Climax contract. He stated that

[34]Two frequently cited lower court opinions to this effect are *Momand v. Universal Film Exchange*, 172 F.2d 37 (1st Cir. 1948), *cert. denied*, 336 U.S. 967 (1949); *Flintkote Co. v. Lysfjord*, 246 F.2d 368 (9th Cir. 1957), *cert. denied*, 355 U.S. 835 (1957).

he wanted no supplies from the Colorado Plateau in a letter early in 1944, shortly after he signed his contract with Imperial. Thus there were admissions of adequate supplies at each crucial period. Petitioners' contemporaneous records further show that Continental and its associates refused or declined to buy offered and available supplies in 1939, 1940, 1941, 1942, 1943, 1944, 1945, 1946, 1947, 1948 and 1949—that is, in every single year for which damages are claimed.

There is a total failure of proof of interference by any respondent company with the Continental-Apex relationship, with the Continental-Climax relationship, with the Continental-Atlas Steels relationship, or with any plan of anyone's to build a mill. Petitioners failed to call any witness to testify at the trial, or by deposition, from Apex, Climax, Imperial or Atlas Steels, and failed to show that they were planning to build a mill. The few documents that they adduced gave rise to no inference of interference.

This record is dispositive of the claim.

Petitioners argue at length that respondents controlled much of the supply of oxide and wrongfully refused to sell, and that they wrongfully interfered with petitioners' other sources of supply. Respondents deny both assertions, but need not dispute them here. The decisive consideration is that, whatever respondents may have done, *petitioners in fact had more than adequate supplies.* Any attempted restrictions of their supplies are irrelevant because on the facts of this case they could not have caused injury.

The same reasoning is implicit in *Standard Oil Co. of California v. Moore*, 251 F.2d 188 (9th Cir. 1957), *cert. denied*, 356 U.S. 975 (1958), and respondents submit that it is sound. The court stated the issue as "whether Moore was unable to obtain a supply of petroleum products which would permit him to remain in business" (251 F.2d at 198). It found the evidence sufficient for a jury verdict, but, in doing so, it examined into each of Moore's sources of supply to reach the conclusion that no adequate source remained.

Petitioners argue (pages 96, 104) that there is a phrase in Apex's letter of November, 1941 (Exhibit V-I-Q, R. 2512A) to the effect that Apex did not have enough oxide to run its production at capacity. The statement was factually true, for Apex had never run anywhere close to capacity, but this was Apex's own choice. As the cited letter itself shows, Apex was at this very time turning down the National Vanadium supply because it did not wish to commit itself ("We feel it is entirely too dangerous to tie up for a five year contract, in fact for any length of time") and because business might decline (a more flexible contract "would take care of us so that if business dropped off entirely, we would have no obligations") (Exhibit V-I-Q, R. 2512). Apex had made the same choice throughout the history of the contract, and this was no exception.

Leir fully recognized all of this at the time, in his reply to the letter cited. He noted that the National Vanadium mill was expected to produce 80,000 pounds per month, "many times the output of Shattuck and Blanding," and that if Apex had any concern about raw materials "one

would think that you would be anxious to tie up this new vanadic acid production" (Exhibit V-Q, R. 2513). He sought to assure them that their supplies would not then be excessive:

> "It would then be a question only of how to manage the output from Shattuck, Blanding, and Gateway. We think you can rely on us to make larger sales of ferrovanadium, in the same proportion in which we obtain raw material."

But Apex had no desire to test the proposition.

The same observations apply to the Apex letters of December, 1941, to the OPM and the Defense Plant Corporation (Exhibit 144, 146, R. 2266-75) as discussed in petitioners' brief (pages 103-04). The letters never state that Apex had inadequate supplies for existing orders, or for any existing need, but that for Apex to operate at a capacity of 50,000 to 60,000 pounds per month it would need more supplies (R. 2275). Apex, of course, had never operated at anything like this capacity, but produced only a little over 100,000 pounds during the entire contract period, or an average of about 5,000 pounds per month during the two years of actual operation (Exhibit 119, R. 2242, 1090, 1351). Thus these letters, which Leir insisted on, and himself drafted,[*] were concerned with "future operations" at a "distant date", as Bayer put it in his testimony (R. 1358). Apex itself had no interest in

[*] Petitioners concede that the letters were written "at the urging and insistence of Mr. Leir." Pet. Brief, page 103, and in fact they were drafted by him and the drafts sent to Apex (Exhibit 144, 146, R. 2266-75, 1354-55).

the allocations, for it had decided to leave the business, but Leir still hoped that Apex would agree to a larger operation (Exhibit V-2-A, R. 1176-85), and also was by then actively sounding out customers for his Van Ex (R. 1159-60). Thus Leir, using Apex as a front, sought to secure allocations for whatever future business he might develop. Under no interpretation was there a present or existing need.

Petitioners can point to nothing else having any bearing on the adequacy of supplies for the Apex contract, and they fail entirely to explain the refusals to buy, the 50,000-pound supply existing at the end of the contract, Leir's admissions of the adequacy of his supplies, and the correspondence which specifies that other causes were exclusively responsible for the termination.

Petitioners do not even contend that supplies were insufficient for the Climax contract (Pet. Brief, pages 105-08). They say with regard to the Van Ex venture that the Nisley production "could not" have been available because of Nisley's toll agreement with the MRC (Pet. Brief, pages 109-11); they fail, however, even to discuss Continental's own correspondence showing a continuous refusal to buy the Nisley supply, or to mention their successful purchase from the MRC mill at Durango, or to explain their failure to make any other requests of the MRC. As to the Imperial contract, petitioners' total argument is that respondents refused on one occasion to sell to them before the contract even began (Pet. Brief, pages 108-09). They never discuss or mention the vast supplies that were available, from respondents and others, from the beginning to the end of the contract period.

There is, in short, no conflict on the pivotal fact that petitioners had adequate supplies for each of their ventures and so could not have been injured by any supply restriction, if any were proved. No other restraint was the subject of evidence.

There Was No Evidence of Loss of Sales or Loss of Profits.

The second aspect of the proof of damages is no less important here, for when it came the petitioners' turn to show from their records that they actually lost sales and profits, they failed to produce the only probative evidence and insisted upon guesswork.

Two established principles control as to this facet of the proof. The first is that enunciated in *Bigelow*, 327 U.S. at 264:

> "In such a case, even where the defendant by his own wrong has prevented a more precise computation, the jury may not render a verdict based on speculation or guesswork. But the jury may make a just and reasonable estimate of the damage based on relevant data, and render its verdict accordingly."

Here, the jury was invited to speculate with no "relevant data" at all.

The second principle is a corollary of *Bigelow* and relates to the fact that here the best available evidence of loss of sales and profits was carefully avoided. As Judge Kirkpatrick stated it in *William Goldman Theatres v. Loew's, Inc.*, 69 F. Supp. 103, 106 (E.D. Pa. 1946), *aff'd.* 164 F.2d 1021 (3rd Cir. 1948), *cert. denied*, 334 U.S. 811 (1948), referring to the *Bigelow* principles:

> "Of course he [the plaintiff] must always produce all the evidence he can * * *."

The same requirement is stated in *Riss & Co. v. Association of American R.R.'s*, 190 F. Supp. 10, 18 (D.C. D.C. 1960), *rev'd on other grounds*, 1962 T.C., ¶ 70,204 (D.C. Cir. 1962); and see *William H. Rankin v. Associated Bill Posters of the United States*, 42 F.2d 152, 155 (2nd Cir. 1930), *cert. denied*, 282 U.S. 864 (1930); *Kobe, Inc. v. Dempsey Pump Co.*, 198 F.2d 416, 427 (10th Cir. 1952), *cert. denied*, 344 U.S. 837 (1952); *Herman Schwabe Inc. v. United Shoe Machinery Corp.*, 297 F.2d 906, 910 (2nd Cir. 1962). The rule is directly related to the presumption that available evidence not produced would be adverse. *Clifton v. United States*, 4 How. (U.S.) 89 (1845); *Galloway v. United States*, 319 U.S. 372, 385-87 (1943); 2 Wigmore, *Evidence*, Sec. 285 (3d Ed. 1940). It is also the converse of the *Bigelow* theory that "defendant by his own wrong has prevented a more precise computation" (327 U.S. at 264). Where the evidence is in fact available, but the plaintiff avoids it, the reason for the *Bigelow* liberality disappears.

The failure of petitioners in this case to show lost sales should in itself be decisive. Instead of showing that there were in fact unfilled orders or requests, and from whom and how much, the evidence of which was necessarily available, and available only to petitioners, petitioners relied exclusively on estimates of market shares unrelated to any evidence whatever. The evidence as offered was wholly nonprobative, and no jury verdict based on it could have stood. *Emich Motors Corp. v. General Motors Corp.*, 181 F.2d 70, 83-84 (7th Cir. 1950), *rev'd on other grounds*, 340 U.S. 558 (1951); *Wolfe v. National Lead Co.*, 225 F.2d 427 (9th Cir. 1955), *cert. denied*, 350 U.S. 915 (1955); *Flintkote Co. v. Lysfjord*, 246 F.2d 368, 391-93

(9th Cir. 1957), *cert. denied*, 355 U.S. 835 (1957); *Wisconsin Liquor Co. v. Park & Tilford Distillers Corp.*, 267 F.2d 928 (7th Cir. 1959); *Herman Schwabe, Inc. v. United Shoe Machinery Corp.*, 297 F.2d 906 (2nd Cir. 1962); *Clapper v. Original Tractor Cab Co.*, 165 F. Supp. 565, 580-82 (S.D. Ind. 1958), *aff'd in part*, 270 F.2d 616 (7th Cir. 1959), *cert. denied*, 361 U.S. 967 (1960); *Delaware Valley Marine Sup. Co. v. American Tobacco Co.*, 184 F. Supp. 440, 446-47 (E.D. Pa. 1960), *aff'd*, 1961 T.C., ¶ 70,170 (3rd Cir. 1961); *Siegfried v. Kansas City Star Co.*, 193 F. Supp. 427, 436 (W.D. Mo. 1961), *aff'd*, 298 F.2d 1 (8th Cir. 1962).

Equally inexplicable and equally destructive of any rational proof of damage was petitioners' failure to show their actual net profits in vanadium. Their "gross profits" were meaningless in the absence of a basis for estimating expenses and thus arriving at net profits.[36] *Wolfe v. National Lead Co., supra*, at page 431; *Delaware Valley Marine Sup. Co. v. American Tobacco Co., supra*, at page 448; *Siegfried v. Kansas City Star Co., supra*, at page 436. The profit made on *all* petitioners' businesses, especially in fluorspar, was obviously no indication of what they might make in vanadium. *Ronson Patents Corp. v. Sparklets Devices*, 112 F. Supp. 676, 692 (E.D. Mo. 1953), *aff'd*, 202 F.2d 87 (8th Cir. 1953). The amount of profit made by respondents was even more irrelevant, because their integrated vanadium-uranium businesses were different in all material respects from petitioners' trading ac-

[36] In Kohler, *A Dictionary for Accountants*, "gross profits" is defined as "net sales, less cost of goods sold and inventory losses, but before considering selling and general expenses, incidental expenses, and income deductions."

tivities. *Fargo Glass & Paint Co. v. Globe American Corp.*, 201 F.2d 534, 540-41 (7th Cir. 1953), *cert. denied*, 345 U.S. 942 (1953); *Flintkote Co. v. Lysfjord*, *supra*, at pages 393-94; *Herman Schwabe, Inc. v. United Shoe Machinery Corp.*, *supra*, at page 911. Thus there was no evidence showing net profits. In the absence of it, in an industry with variable expenses and profit rates, there was no permissible assumption that profits were automatic or guaranteed. *A fortiori* was this the case where petitioners' principal associate had actually lost money. Certainly, no jury could first presume profit, where none was shown, and then pick a rate of profit out of thin air. *Baush Mach. Tool Co. v. Aluminum Co. of America*, 79 F.2d 217, 227 (2nd Cir. 1935); *Wolfe v. National Lead Co.*, *supra*, at pages 431-32; *Flintkote Co. v. Lysfjord*, *supra*, at pages 391-94. See *Talon, Inc. v. Union Slide Fastener, Inc.*, 266 F.2d 731, 737-38 (9th Cir. 1959).

Thus in a case where the precise proof was at hand petitioners asked for a verdict "based upon speculation or guesswork" and now purport to rely on *Bigelow* for justification. The reliance is misplaced. Neither *Bigelow* nor any other case has ever sanctioned a deliberate avoidance of the facts from one having the burden of proof. The aid of *Bigelow* is intended for those who prove all they can and in so doing are able to demonstrate at least the substance of a meritorious claim.

Upon All Aspects of the Claim Petitioners Failed to Tender an Issue.

The present action is similar in one aspect to *Galloway v. United States*, 319 U.S. 372 (1943). There, as here, the best and most probative evidence was withheld, with

the result that the fact to be proved might be presumed against the claimant.

Unlike *Galloway*, however, there is here no difficult question of what inferences are possible from equivocal or fragmentary facts. In the case at bar, the petitioners' own records and admissions resulted in a full and adverse proof upon the precise factual issue, leaving no conflict as to the evidentiary facts. Respondents therefore make no choice between the differing views of the function of judge and jury which were expressed in *Galloway*. Even accepting the stricter of the tests advanced, there is in this case "no room whatever for honest difference of opinion over the factual issue in controversy."[37]

Under the tests set forth in *Bigelow* and *Story Parchment*, the result is the same and perhaps still more clearly apparent. Upon the whole record there is no just and reasonable inference of damage; even less is injury the certain result of the wrong. On the contrary the claim is here destroyed, at its crux, by petitioners' own admissions and undisputed records, to such extent that petitioners' failures are to a certainty not the result of the claimed wrong.

Even if this were not the case, the result would be the same, because the petitioners here chose to take their chances and rely upon speculation, unrelated to any evidence in the case, to prove their actual losses. They

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[37] Dissenting opinion of Mr. Justice Black in *Galloway v. United States*, 319 U.S. 372, 407 (1943). Compare *Maynard v. Durham & Southern R. Co.*, 365 U.S. 160, 162 (1961), where the court found the evidence sufficient in one of its aspects but as to a different aspect, the subject of a pivotal admission, found "no evidence sufficient for a jury."

offered the jury no alternative. In their effort to build up a large claim, which the facts would not support, they forfeited any real claim which they conceivably might have had.

Petitioners therefore offered the court below no more choice than they offered the jury. Whatever the reasoning chosen, the result was unavoidable.

VI

ASSUMING THERE WAS EVIDENCE OF ANY INDUCEMENT OF THE CANADIAN GOVERNMENT'S ACT OF REFUSING TO BUY FROM PETITIONERS, NEITHER THE ACT NOR THE INDUCEMENT WOULD GIVE RISE TO ANTITRUST LIABILITY.

Respondents have already shown that no evidence was offered relating to petitioners' Canadian business except:

(a) the fact that Eletcro Metallurgical Company of Canada, a Canadian corporation and a Carbide subsidiary, while acting as agent of the Canadian Government to buy vanadium for the Canadian steel mills, declined to buy Continental's vanadium;

(b) hearsay evidence that an employee of Electromet in New York, a different Carbide subsidiary, five months later and without the knowledge or approval of his employer or of any respondent, assertedly told Wolf that Continental should stay out of the vanadium business in Canada.

The evidence therefore showed no connection between the respondents and the refusal to buy.

The court below, however, chose to rest its decision on this aspect of the case upon the ground that the damage-creating act was not within the purview of the antitrust laws,[38] and such is the issue presented by paragraph 5 of the writ of certiorari. Against the possibility that this Court will choose to review the question, the respondents argue it here.

At the time of the refusal to buy, Electromet of Canada was specifically charged by the Metals Controller of Canada, a government official, with the duty of purchasing on behalf of that government all of the vanadium needed by the Canadian steel mills, and then allocating it to those mills. This was conceded in the complaint (paragraph 36, R. 20) and at trial (R. 809), and it is now conceded in petitioners' brief, where it is said that Electromet of Canada had been given "the power in Canada to allocate and control the importation of vanadium into Canada" (page 112). It was also beyond dispute that when the agency was created in early 1943, Canada was in the midst of war and vanadium was a strategic material, so that the purchasing power given was in the interests of the national security of Canada in time of war.[39] Such

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[38]As previously noted, *supra*, p. 47, the trial court recognized the incompetency the evidence, as well as its irrelevance under the antitrust laws.

[39]The emergency nature of the powers granted, and the broad scope of the powers, are set forth in the various Orders in Council as attached to the Memorandum of Defendants Union Carbide Corporation and United States Vanadium Corporation Regarding Actions Undertaken on Behalf of the Government of Canada in Time of War, which document was included in the second supplemental record transmitted to the Court by the Clerk of the United States Court of Appeals for the Ninth Circuit on November 8, 1961. The Orders are not part of the printed record.

power, granted in wartime, was validly delegated as a matter of Canadian law,[40] and petitioners do not question the validity of the agency.

It further appears from petitioners' own offered evidence that the Canadian Metals Controller acquiesced in and thus ratified the very course of action taken by Electromet of Canada when petitioners called it to his attention. According to the offer of proof, Wolf wrote directly to the Metals Controller on April 26, 1943, saying that Electromet of Canada should be required to purchase from Continental if the Canadian steel mills so requested, and asked for confirmation that this was the policy of the Metals Controller (Exhibit 91 for ident., Vol. IX, R. 449-50, R. 821). The Metals Controller's office replied on April 29, 1943, that Electromet of Canada was charged with the duty of purchasing and that (Exhibit 93 for ident., Vol. IX, R. 451, R. 821):

> "Having the above in mind, we suggest it is advisable you make your own arrangements with Electro-Metallurgical Company."

Thus the Metals Controller, being specifically advised of Continental's complaint, declined to intervene, but instead confirmed his agent's plenary authority.

The issue, then, is whether this government act of Canada, carried out by a duly appointed agent acting within the established and confirmed scope of its agency for purposes of national defense, can now give rise to antitrust liability, or can be called into question at all.

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[40]See *In the Matter of a Reference As to the Validity of the Regulations in Relation to Chemicals, etc.* [1943] Can. Sup. Ct. 1.

The respondents do not claim or suggest any antitrust exemption created by United States statutes, and accordingly cases like *United States v. Borden Co.*, 308 U.S. 188 (1939) and *Milk Producers Ass'n v. United States*, 362 U.S. 458 (1960) are irrelevant. Nor do respondents depend upon mere approval by a regulatory agency, and thus cases like *United States v. Socony Vacuum Oil Co.*, 310 U.S. 150 (1940); *Georgia v. Pennsylvania R. Co.*, 324 U.S. 439 (1945); and *Atchison, Topeka & Santa Fe Ry. Co. v. Aircoach Transport Ass'n*, 253 F.2d 877 (D.C. Cir. 1958) are beside the point. Nor do they claim general immunity from suit, as to themselves or as to Electromet of Canada, so that cases like *Sloan Shipyards Corp. v. United States S. Bd. E.F. Corp.*, 258 U.S. 549 (1922) and *United States v. Deutsches Kalisyndikat Gesellschaft*, 31 F.2d 199 (S.D.N.Y. 1929), are not in question.[41]

What respondents do assert is that, where the decisive and allegedly injurious act is the act of a foreign government within its own jurisdiction, it cannot be questioned in United States courts. It is not within the ambit of the antitrust laws or any other statute of the United States. *A fortiori*, no action for damages can be based upon it.

The Acts of an Agent of a Foreign Government in Its Own Jurisdiction Are Not Within the Antitrust Laws and Cannot Be Called Into Question.

The act of Electromet of Canada as agent of the Canadian government in refusing to buy is not within the antitrust laws for two major reasons: (1) the Sherman

[41] The cited cases are discussed by petitioners in their brief at pages 112-26.

Act is not intended to apply to governmental acts, and (2) no act of a foreign government within its own jurisdiction can be questioned in our courts.

This Court has very recently reiterated in *Eastern R. Conf. v. Noerr Motors*, 365 U.S. 127, 136 (1961) that:

> "* * * where a restraint upon trade or monopolization is the result of valid government action, as opposed to private action, no violation of the Act can be made out."

Similarly in *United States v. Rock Royal Co-op.*, 307 U.S. 533 (1939), *Parker v. Brown*, 317 U.S. 341, 350 (1943) and *Olsen v. Smith*, 195 U.S. 332, 344-45 (1904), this Court concluded that the Sherman Act had never been intended to reach the governmental acts of the states of the Union or the Federal Government, although in each case the same acts, if undertaken by private parties, would have been illegal.

Governments, like corporations, can only act through agents, and, accordingly, the act of a government agent within the scope of his agency is that of the government.

In *Parker v. Brown, supra*, this Court had occasion to consider the scope of the agency granted to the Raisin Proration Committee in California and concluded, despite the very broad grant of authority,[42] that it was the State which adopted and controlled the program (317 U.S. at 352). In *Olsen v. Smith, supra*, this Court held that indi-

[42] "Complete control and plenary direction were conferred upon the program committee . . . ." *Dickey v. Raisin Proration Zone No. 1*, 24 Cal.2d 796, 808; 151 P.2d 505 (1944); Cal. Stats. (1939) Ch. 894, Secs. 18, 19, pp. 2496-98. See also *Brown v. Parker*, 39 F. Supp. 895, 901 (S.D. Cal. 1941) *reversed Parker v. Brown*, 317 U.S. 341 (1943).

viduals who had been granted full power by a state to decide who could engage in the occupation of pilot, did not violate the Sherman Act by their "combination among themselves [to] exclude all others." 195 U.S. at 344-45.

In each of these cases neither the motive of the agent nor the effect of his activities was considered pertinent. In each, the agent or agents exercised governmental powers which in the private sphere would have amounted to an illegal restraint or a monopoly; in each, the private purpose of price fixing or monopolizing was to a greater or lesser degree evident; nevertheless, the courts refused to inquire into such purposes or effects once the act complained of was found to be within the scope of a valid governmental agency.

The ultimate reason for the judicial reluctance to interfere with such agencies is the courts' respect for the governmental choice. By hypothesis, the sovereignty concerned has knowingly chosen an interested agent; it has clothed him with such power as to permit abuse; deliberately it has taken the risk of a possible conflict of interest. The courts refuse to conclude that the agent's acts within the scope of his agency may be deemed a private act, regardless of his motives, when his sovereign principal has characterized his function in advance as a public function. See *United States v. Rock Royal Co-op., supra*, 307 U.S. at 560. If the courts reverse this policy, and do interfere, plainly the potential agent will be reluctant to accept the appointment, and, if he does accept, will be fearful of liability whatever he does and regardless of his motives. *C.f., Barr v. Matteo*, 360 U.S. 564 (1959). Thus the agent will not perform as he should, if he per-

forms at all, and the courts will have injuriously meddled with a governmental process in the name of a statute aimed at private acts alone.

Most particularly should this reasoning apply where, as here, the sovereignty not only grants a broad authority at the inception of an agency, risking the wrongful purpose of the agent, but later specifically reconfirms that authority when the agent's motive is called into question. As a matter of law the sovereign then ratifies the agent's authority as granted and adopts the acts complained of as its own. *The Paquete Habana*, 189 U.S. 453 (1903); *O'Reilly de Camara v. Brooke*, 209 U.S. 45 (1908); *Tiaco v. Forbes*, 228 U.S. 549 (1913); 1 Mechem, *Agency*, Secs. 430, 432, 459 (2d Ed. 1914); Restatement (Second) *Agency*, Sec. 93, Comment a, Sec. 94 (1958). In such case there should be no question that the acts concerned are governmental in character. The sovereign has so declared them, both before and after the fact, and thereby made them an integral part of its own governmental process.

Where the act of a foreign government within its own jurisdiction is concerned, a further and overriding principle dictates the same result. International comity requires that such acts of state be regarded as beyond the jurisdiction of our courts, for "the courts of one country will not sit in judgment on the acts of the government of another, done within its own territory." *Oetjen v. Central Leather Co.*, 246 U.S. 297, 303 (1918); *Ricaud v. American Metal Co.*, 246 U.S. 304, 310 (1918); *Underhill v. Hernandez*, 168 U.S. 250, 252 (1897); *Cf., American Banana Co. v. United Fruit Co.*, 213 U.S. 347 (1909); *Gladstone v. Ottoman*

Bank [1863] 1 H. & M. 505, 71 Eng. Rep. 221. On the occasions when our courts have by their decrees sought to control foreign acts and policies, immediate and widespread criticism has ensued abroad[43] and our courts have accordingly refrained from so doing in the absence of clear necessity.

Thus in *Vanity Fair Mills v. T. Eaton Co.*, 133 F.Supp. 533 (S.D.N.Y. 1955), *modified*, 234 F.2d 633 (2d Cir. 1955), *cert. denied*, 352 U.S. 871 (1956), the court refused to question the validity of defendant's Canadian trademark registration, regarding this decision as one within Canada's sole jurisdiction. It stated that to do so "might provoke justified resentment" (133 F. Supp. at 529), and the Appellate Court agreed, noting "the tenderness of Canadian authorities concerning what they consider foreign interference with their domestic concerns" (234 F.2d at 647, note 20). The fact that the Canadian registration and defendant's vigorous enforcement of its trademark rights in Canada effectively prevented plaintiff's exports to Canada, was regarded as beside the point.

Especially have the courts declined to intervene when the act complained of intimately concerns the national policy or national security of the foreign country.

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[43]See, *e.g.*, the Canadian newspaper characterization of the decree in *United States v. Imperial Chemical Industry*, 105 F. Supp. 215 (S.D.N.Y. 1952), as "sheer effrontery" and as an "incredible" example of "American judicial arrogance." *The Globe and Mail*, Toronto, August 20, 1952, page 6, column 1; and see similar comments of the Master of the Rolls in *British Nylon Spinners, Ltd. v. Imperial Chemical Industry, Ltd.* [1953] 1 Ch. 19, 24, 25. See generally Brewster, *Antitrust and American Business Abroad*, pages 45-51 (1958); G. W. Haight, *Antitrust Laws and the Territorial Principle*, 11 Vand. L. Rev., 27, 33-34 (1957); J. T. Haight, *The Restrictive Practices Clause in United States Treaties*, 70 Yale L.J. 240, 251-54 (1960).

The cases in which a foreign government has set up a purchasing or selling agency in the United States for commercial purposes, like *United States v. Deutsches Kalisyndikat Gesellschaft*, 31 F.2d 199 (S.D.N.Y. 1929), (Pet. Brief, p. 117) are not pertinent here, not only because those corporations operated in this country but also because their purpose was commercial. Here the purpose was governmental. As the court stated in the case of *In re Investigation of World Arrangements*, 13 F.R.D. 280, 290 (D.D.C. 1952):

> "The supplying of oil to insure the maintenance and operation of a naval force—and in this day and age, an air force—is certainly a fundamental government function serving a public purpose. See *Berizzi Bros. v. The Pesaro*, 1926, 271 U.S. 562; 46 S.Ct. 611; 70 L. Ed. 1088."

So it is in this case. The purchase of vanadium in time of war for the Canadian steel mills was, under any standards, a governmental function, and the acts of Canada's agent for such purpose were governmental acts.

From the above authorities, it follows that liability cannot be predicated on the governmental act of Electromet of Canada alone. The significance of the alleged influencing of that governmental act remains to be considered.

The Act of Inducing a Government or Governmental Agency to Exercise Governmental Powers Is Not Cognizable.

The established rule is that if the decisive act complained of is governmental, the means by which private parties may have influenced or induced the decision are immaterial. *Eastern R. Conf. v. Noerr Motors*, 365 U.S.

127 (1961); *United States v. Rock Royal Co-op.*, 307 U.S. 533 (1939); *American Banana Co. v. United Fruit Co.*, 213 U.S. 347 (1909). So in the *Noerr* case this Court said (365 U.S. at 136):

> "We think it • • • clear that the Sherman Act does not prohibit two or more persons from associating together in an attempt to persuade the legislature or the executive to take particular action with respect to a law that would produce a restraint or a monopoly."

Similarly, in *Rock Royal* this Court discussed the activities of private parties in proposing, drafting and securing a favorable order from an agency which they dominated and concluded that such activities were beyond the scope of the antitrust laws.

Many years ago Justice Holmes applied the same principle in the foreign field in *American Banana*. Whatever other aspects of the opinion have since been disapproved, the essence of his decision, expressed below, is still sound (213 U.S. at 358-59):

> "The fundamental reason why persuading a sovereign power to do this or that cannot be a tort is not that the sovereign cannot be joined as a defendant or because it must be assumed to be acting lawfully. • • • The fundamental reason is that it is a contradiction in terms to say that within its jurisdiction it is unlawful to persuade a sovereign power to bring about a result that it declares by its conduct to be desirable and proper. It does not, and foreign courts cannot, admit that the influences were improper or the results bad. It makes the persuasion lawful by its own act. The very meaning of sovereignty is that the decree of the sovereign makes law."

Similar is the conclusion of the English court, faced with the same problem, in *Gladstone v. Ottoman Bank* [1863] 1 H. & M. 505; 71 Eng. Rep. 221, where the allegation was that the individual defendants "concerted a scheme" for inducing the Sultan of Turkey to revoke plaintiff's exclusive concession and grant it to defendants. The court sustained a demurrer, saying that such efforts could not be considered:

> "It is the act of a foreign sovereign power which overrides everything" (71 Eng. Rep. at 224).

And see *Hewitt v. Speyer*, 250 Fed. 367, 371 (2d Cir. 1918); *Stark v. Howe Sound Co.*, 266 N.Y.S. 368 (Sup. Ct. 1933) *aff'd*, 269 N.Y.S. 936 (App.Div. 1934); *Frazier v. Foreign Bondholders' Protective Council*, 125 N.Y.S. 2d 900, 904 (App.Div. 1953).

In each of the cited cases the influence leading to the governmental act—whether by means of bribery, persuasion, or domination—is merged in the culminating decision of the sovereign. The courts do not examine into the means and motives, nor into the effectiveness, of those who are claimed to have induced the sovereign's decision, because whatever they did is part of the political process which the sovereign permits, and in the end approves, by its own act. The influence may be combatted in the political arena, but not after the fact in the courts, for to do so is necessarily to question the finality of the governmental act itself.

The case is, of course, different if there are in evidence private acts as well. Thus in *United States v. Sisal Sales Corp.*, 274 U.S. 268 (1927), cited by petitioners in their

brief (pages 118-19)[44] the defendants not only secured a monopoly of a supply of goods in a foreign country but also set up an exclusive sales agency in the United States, which was able to exercise the monopoly here. The facts were, as this Court said in *Sisal*, "radically different" from the facts in *American Banana* (274 U.S. at 275), because in *Banana* the claim was based "upon acts done outside the United States and not unlawful by the law of the place" whereas in *Sisal* the object was a "complete monopoly of both internal and external trade" (274 U.S. at 276).

In the present case nothing of the kind involved in *Sisal* is even alleged, much less proved. If anything at all is shown by the offer of proof, which respondents deny, it is no more than the exercise of some unspecified influence upon a government resulting in a governmental act which itself is claimed to be wrongful. This is precisely the case disposed of by *Noerr*, *Rock Royal* and *American Banana*.

No Action for Damages Can Be Based Upon the Governmental Act in Canada.

There is, however, a further though related reason why petitioners cannot prevail, and that is because they seek *damages*, which necessarily must result from the govern-

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[44]The petitioners also cite (p. 119) in this connection *United States v. E. P. Oldham Co.*, 152 F. Supp. 818 (N.D. Cal. 1957), but that case involved no governmental act at all.

mental act if there are any damages at all. The present case does not even involve a claim as to any "direct injury as an incidental effect of the . . . campaign to influence governmental action", discussed and rejected in *Noerr*, 365 U.S. at 143. Here there was no attempt to show that the alleged influence, whatever it was, in itself caused damage. Any injuries stemmed solely from Canada's refusal to buy.

But if the injurious act is itself beyond attack, no damages are recoverable. The gist of any treble damage case is the overt act, or acts, which are claimed to cause injury. As said long ago by Mr. Justice Brandeis, in *Keogh v. C. & N.W. Ry. Co.*, 260 U.S. 156, 163 (1922), "injury implies violation of a legal right," so that if, as in *Keogh*, damage stems from a governmental act, no legal injury results. Later, in *Georgia v. Pennsylvania R. Co.*, 324 U.S. 439 (1945), this Court reaffirmed the *Keogh* reasoning, holding that, although the State of Georgia could *enjoin* a conspiracy to fix flat rates, it could not secure *damages* resulting from the rates ultimately set by the Interstate Commerce Commission, for the reason that the rate itself was made the legal rate by the I.C.C.

The same principle was decisive in *Okefenokee Rural Elec. Mem. Corp. v. Florida P. & L. Co.*, 214 F.2d 413 (5th Cir. 1954), the facts in which were strikingly similar to those in the case at bar. The complaint alleged that the State Road Department refused to issue plaintiff a permit because defendants were conspiring to divide the market among themselves and so persuaded the Depart-

ment. The reasoning of the Court of Appeals for the Fifth Circuit is directly applicable here (214 F.2d at 418):

> "In brief, all of the damages averred in the complaint and all that are shown to be probable have been suffered or will accrue from the denial of the right to use this 'only feasible route.'. . . . The plaintiff had no legal right to use the state highway without a permit from the State Road Department, nor the county roads without permission of the Board of County Commissioners, and those authorities have decided against the plaintiff. So long as their decisions stand the plaintiff has not been legally injured, notwithstanding it may have been irreparably damaged."

The result is that even if, contrary to *Noerr*, the alleged influence could be called into question and condemned in a prosecution by the United States, still petitioners would have no legal basis for a damage recovery. Their claimed injury results solely from the sovereign act of the Government of Canada.

CONCLUSION

The statement of questions presented which petitioners have pressed upon the Court, and upon which the writ of certiorari was in part granted, describes issues where none in fact exist. There is no conflict in the crucial evidence. No legal question is fairly presented by the record.

Petitioners left neither of the courts below a choice as to the result. The judgment should now be affirmed, or the writ dismissed as improvidently granted.

Dated, April 1, 1962.

Respectfully submitted,

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(Appendices A and B Follow)

Appendix A

Respondents file with their Brief in Opposition, under Rule 21(6), certified copies of appellants' designation of record and the designations of the record for printing filed by both parties in the court below, together with a certificate of the clerk of the court below stating that the designations for printing included all of the testimony in the trial transcript. Below are reprinted the appellants' designation of record and the clerk's certificate, omitting in each instance the title of court and cause.

DESIGNATION OF RECORD

To the Clerk of the Above-Entitled Court:

Plaintiffs-appellants in the above-entitled case having appealed to the United States Court of Appeals for the Ninth Circuit from a final judgment heretofore made and entered herein, you are hereby requested to prepare certified record of appeal in accordance with the rules of the said Court of Appeals and to file the same with the Clerk of the said Court in due course, as provided by law, to include the following:

1. The complete record and all of the proceedings and evidence in the above-entitled action.

2. This designation of record.

Dated: June 30, 1958.

Joseph L. Alioto

Joseph L. Alioto
Attorney for Plaintiffs-Appellants

CERTIFICATE OF CLERK, U. S. COURT OF APPEALS FOR THE NINTH CIRCUIT, TO SUPPLEMENTAL RECORD CERTIFIED UNDER RULE 21 OF THE REVISED RULES OF THE SUPREME COURT OF THE UNITED STATES.

I, William E. Wilson, as Chief Deputy Clerk of the United States Court of Appeals for the Ninth Circuit, do hereby certify the foregoing documents: designation of appellants filed in the District Court, appellants' statement of points and designation or record, letter amending designation; designation of appellees' Union Carbide, et al., supplemental designation of appellees' Union Carbide, et al., letter of Clerk, U. S. Court of Appeals of April 26, 1960 to be a full, true and correct copy of documents requested by the appellees and certified as a supplemental record under Rule 21 of the Revised Rules of the Supreme Court of the United States as the originals thereof remain on file and appear of record in my office.

I further certify that I have compared the designations of the record of printing filed by the respective parties as transmitted herewith, with the reporter's transcript in this case in the United States District Court for the Northern District of California, and that the parties did designate for printing all portions of the said reporter's transcript which contain the testimony of the witnesses, and omitted portions consisting of certain statements and arguments of counsel and colloquies between court and counsel.

Attest my hand and the seal of the said The United States Court of Appeals for the Ninth Circuit, in the City and County of San Francisco, State of California, this 7th day of September, 1961.

(Seal)

William E. Wilson

William E. Wilson
Chief Deputy Clerk

Appendix B

The letter reprinted below is one of the documents certified to the Court under Rule 21(6) by means of the clerk's certificate filed with the Brief in Opposition and reprinted in Appendix A above.

Office of the Clerk
U. S. Court of Appeals
For the Ninth Circuit.
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April 26, 1960

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No. 16149

Continental Ore Co. v. Union Carbide

Gentlemen:

The Court has requested my office to suggest to counsel in the above entitled case that it would be helpful to the Court if counsel would file additional memoranda (an original and three copies, which may be typewritten) pointing to every specific place in the record where there is testimony or documentary evidence which will show or tend to show:

1. The cause of the termination of Apex Smelting Company's arrangement with Continental.

2. The cause of the termination of Imperial Paper and Color Corporation's arrangement with Continental.

3. The cause of the cessation of shipments by Continental of vanadium compounds from its Long Island premises.

4. The cause of the failure of Continental to work out an arrangement with Climax Molybdenum Corporation.

The Court requests that this memoranda be filed within two weeks from today. Thank you.

Sincerely,
Frank H. Schmid
Clerk

FS:nd

Office-Supreme Court, U.S.
FILED
APR 14 1962
JOHN F. DAVIS, CLERK

In the Supreme Court

OF THE

United States

OCTOBER TERM, 1961

No. 304

CONTINENTAL ORE COMPANY, a Partnership, and HENRY J. LEIR, ERNA D. LEIR, LINA SCHLOSS, as Individuals and as Partners under the trade name and style of CONTINENTAL ORE COMPANY, *Petitioners*,

vs.

UNION CARBIDE AND CARBON CORPORATION; UNITED STATES VANALIUM CORPORATION; ELECTRO METALLURGICAL SALES CORPORATION; ELECTRO METALLURGICAL COMPANY OF CANADA, LIMITED; VANADIUM CORPORATION OF AMERICA, *Respondents*.

On Writ of Certiorari to the United States Court of Appeals for the Ninth Circuit

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In the Supreme Court
OF THE
United States

OCTOBER TERM, 1961

No. 304

CONTINENTAL ORE COMPANY, a Partnership, and HENRY J. LEIR, ERNA D. LEIR, LINA SCHLOSS, as Individuals and as Partners under the trade name and style of CONTINENTAL ORE COMPANY, *Petitioners*,

vs.

UNION CARBIDE AND CARBON CORPORATION; UNITED STATES VANADIUM CORPORATION; ELECTRO METALLURGICAL SALES CORPORATION; ELECTRO METALLURGICAL COMPANY OF CANADA, LIMITED; VANADIUM CORPORATION OF AMERICA, *Respondents*.

On Writ of Certiorari to the United States Court of Appeals for the Ninth Circuit

REPLY BRIEF OF PETITIONERS

I

PRELIMINARY STATEMENT.

In their briefs, respondents initially attempt to reframe the questions on which this Honorable Court granted certiorari so as to fit their arguments. Nowhere in their briefs do respondents point out where these questions misstate the issues presented by the record and the opinion of the Court below. And nowhere in respondents' brief in opposition to petitioners' Petition for a Writ of Certiorari did respondents even suggest that petitioners misstated any issue presented by the record, which would seem to be the proper place to raise such an objection.

Secondly, respondents attempt to create the impression that basically this is a "fact" case, pure and simple. Nothing could be further from the truth. Each question set forth in the writ of certiorari presents a serious question of law, one of these questions going to the basic right of a litigant to have all issues decided by the trier of fact and not summarily by an Appellate Court.

Respondents persist in an artful refusal to view the evidence steadily, to view it whole and to consider it in the light that an Appellate Court is required to consider the evidence in determining whether the case should be removed from the jury and decided on a peremptory directed verdict.

This Court has recently expressed a disapproval of peremptory rulings by Courts which take anti-trust cases away from the jury. *Poller v. Columbia Broadcasting System, Inc.* ..... U.S. ....., 82 S.Ct. 486 (1962); *Klor's, Inc. v. Broadway-Hale Stores, Inc.*, 359 U.S. 207 (1959); *Radovich v. National Football League*, 352 U.S. 445 (1957).

Respondents' factual statement and petitioners' factual statement show that there was a serious factual conflict on the issue of causation. This conflict is emphasized by a reading of the Appellate Court's opinion.

Under a factual situation such as presented in the instant case, the cases of *Story Parchment Co. v. Paterson Parchment Paper Co.*, 282 U.S. 555 (1931) and *Bigelow v. RKO Radio Pictures, Inc.*, 327 U.S. 251 (1946) are controlling. Nowhere in their briefs have respondents offered any sound distinction between the case at bar and the *Story Parchment* and *Bigelow* cases.

Under these cases a conspirator is held responsible for the results which he *intends* to occur by his illegal acts and which do in fact occur.

The most recent statement of this principle occurs in *Elyria-Lorain Broadcasting Co. v. Lorain Journal Co.*, (6 Cir. 1961) 298 F. 2d 356. In that case the Court stated (p. 359):

> "In the usual anti-trust case, proximate cause may present the problem of whether the plaintiff was within the 'target area' of the proscribed activities. Karseal Corporation v. Richfield Oil Corporation, 221 F. 2d 358 (C.A. 9, 1955). But, certainly this can be no problem *here*, where the defendants' acts were admittedly aimed only at the plaintiff broadcasting company."

In the instant case there is no question that petitioners were in the "target area". Burwell admitted that his instructions from his superiors were to eliminate *all* possible competition, and, specifically, he testified that the only reason that Carbide would not sell vanadium to Mr.

Leir was "they wanted to keep him out of the vanadium business. No other reason" (R. 547). Bransome, president of VCA, substantiated this exclusionary policy toward petitioners when he told Burwell that they were trying to keep Mr. Leir out of the vanadium business. (R. 225-226.)

Pursuant to this intent, these "assumed" conspirators performed all the predatory acts set forth in Petitioners' Opening Brief at pages 18 to 63.

In their factual statements, both respondents have made misstatements of the record which should be corrected immediately, so that there will be no confusion as to the questions presented.

1. The Court below "assumed" for the purposes of its opinion that "the evidence was adequate to support a jury finding that the defendants committed the violations of the Sherman Act claimed, and that the defendants did the acts mentioned as part of a plan to monopolize the marketing of ferro-vanadium." (R. 2572.) The Court then stated specifically that its "problem" was "to determine whether or not the evidence could have justified a jury's finding that defendants' illegal acts were in fact the cause of plaintiffs' failure in various adventures into the business of producing and selling ferro-vanadium and Van-Ex." (R. 2572.)

Therefore, there is no question that the opinion "assumed" or "admitted" for its purposes that respondents had violated the anti-trust laws and "did the acts mentioned as part of a plan to monopolize" the ferrovanadium industry. At page 5 of its brief respondent VCA

concedes this. Respondents' attempts to engage in a battle of semantics as to whether the lower Court "assumed" or "admitted" that they violated the anti-trust laws and monopolized the vanadium industry is just an attempt to introduce a non-existing issue.

2. There is no denial by respondents that, except for the ill-fated challenge by petitioners, they, at all times herein pertinent, maintained a 100% two-company monopoly of ferrovanadium.

3. Blair Burwell, without any doubt whatsoever, was USV's chief executive officer and the directing force behind all of Carbide's activities on the Colorado Plateau. His impressive qualifications are set fully at page 16, footnote 3, of Petitioners' Opening Brief. Carbide's attempt to disown him as "Leir's friend" is childish, an abandonment that even their co-conspirator VCA could not swallow. (See VCA Brief, page 4, footnote 3.) The contemporaneous documents and correspondence, letters from Carbide's files, fully support Burwell.[1] Such letters were written long before Mr. Leir came to the United States.

4. Respondents refuse to recognize that the elimination of petitioners was but a facet of respondents' overall conspiracy to monopolize all phases of the vanadium industry. This overall conspiracy certainly was "confessed" by Burwell in no uncertain terms. *Union Carbide*

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[1]See *Union Carbide & Carbon Corp. v. Nisley*, (10 Cir. 1962) 1962 Trade Cases, paragraphs 70, 222, p. 75, 805 at 75, 831, where the 10th Circuit Court, in speaking of Mr. Burwell, states "While these incriminating statements may have been apocryphal, no one familiar with this record can doubt the power and ingenuity of the responsible maker of the statements to make good his boast."

and Carbon Corp. v. Nislay, (10 Cir. 1962) 1962 Trade Cases para. 70, 222, p. 75, 805, clearly sets forth this overall conspiracy and the various violations of the anti-trust laws utilized by respondents to monopolize all phases of the industry.

With these preliminary statements, we proceed to answer respondents' arguments.

II

RESPONDENTS HAVE NOT ANSWERED QUESTION 1 OF THE WRIT GRANTED BY THIS COURT.

A. The action involves exclusion of actual competition.

1. There existed an exclusionary conspiracy to monopolize.

Nowhere in their briefs have either of the respondents met or answered petitioners' contention that the decision below is in direct and basic conflict with the purposes of Congress in establishing liability on those who conspire to monopolize, with the decisions of this Court which have rejected the determination of "legal cause" as a matter of law in Sherman Act litigation and which allow damages to those who suffer from the *natural consequences of wrongful and intended acts.*

We must start with the following facts which are now not seriously challenged.

1. Respondents committed violations of the Sherman Act as claimed in the complaint.

2. Respondents did all the acts mentioned by petitioners in their complaint as part of a plan to monopolize the marketing of ferrovanadium.

3. Burwell, the chief executive officer of USV, testified directly that Carbide, one of the conspirators, had as its purpose and intent the exclusion of all independent and potential sources of supply for petitioners. See Petitioners' Opening Brief, pages 28 to 36.

In this connection, Mr. Burwell testified that pursuant to his instructions to eliminate all potential competition he eliminated:

1. *Anaconda Copper Co.*: He purchased its production only "to keep it off the market" (R. 297);

2. *Gateway Alloys*: "We wanted to keep another vanadium operation from getting started" (R. 292-293);

3. *Mesa Vanadium Mill*: The entire mill was acquired by USV "to keep it out of production" (R. 303);

4. *Durango Mill*: This mill was acquired because "we wanted the plant to keep control of the production of vanadium" (R. 246);

5. *Nisley & Wilson Mill*: For the predatory practices instituted against this mill, see Petitioners' Opening Brief, pages 35-36; 46, and *Union Carbide & Carbon Corp. v. Nisley, supra*;

6. *Loma Mill*: USV commenced purchasing unneeded ore located in this mill's tributary areas to keep the ore "away from this mill" (R. 303-306);

7. *Mammoth St. Anthony Mining Co.*: Burwell purchased its production to "keep it off the vanadium market" in the United States (R. 178);

8. *Blanding Mines*: See Petitioners' Brief, p. 34;

9. *North Continental Mill:* Turned into an ore buying station (R. 134, 121).

4. Burwell testified that there was an admitted policy on the part of respondents to exclude petitioners. (Petitioners' Brief, pages 36 to 39.) In this respect, Burwell testified that Carbide "did not want to sell vanadium to Mr. Leir because they wanted to keep him out of the vanadium business. No other rea. n." (R. 547.) And Burwell testified that in a meeting with Mr. Bransome, chief executive officer of VCA, a proposed operation was not sanctioned because "that would put Mr. Leir in the vanadium business and that is what we are trying to keep him out of." (R. 225-226.)

5. There was substantial evidence that respondents interfered with every source of supply available to petitioners and with their manufacturing associates. (Petitioners' Brief, pages 39 to 56.)

6. Both respondents consistently refused to sell vanadium oxide to petitioners. (Petitioners' Brief, pages 56 to 63.)

7. Petitioners, who were successful in other fields of metals and alloys, were in fact required to leave the vanadium industry.

The sum total of the evidence then is that respondents had entered into a conspiracy to monopolize the vanadium industry at all its levels, that as a part of this conspiracy they had as their intention the premeditated elimination of all competition, that they in fact eliminated all independent sources of supply and all mills that could pos-

sibly nurture an independent vanadium operation, that there was a policy in both companies to prevent petitioners from entering or remaining in the vanadium industry, that executive officers of both companies stated that they did not want petitioners in the vanadium industry, and finally, that petitioners were in fact caused to leave the vanadium industry. The end result is that which respondents intended to occur by their company policies and practices in violation of the antitrust laws did occur. *Elyria-Lorain Broadcasting Co. v. Lorain Journal Co.* (6 Cir. 1961) 298 F.2d 356.

Certainly an intentional wrongdoer is to be held liable in the Courts for all the natural consequences of his intended acts. He cannot be heard to say that the precise manner of the capitulation of sources of supply or manufacturing associates was not foreseen, having embarked on a program which insured that these sources and associates would fall. Respondents have made no real answer to the application of ordinary rules of proximate cause. Rather they misstate the issue as one in which a competitor seeks damages only upon proof of violation; that the case at bar involves no acts of impact or contact or natural tendency to cause harm, the proof of which establishes liability. But in contrast to the legal explanation of the issue before the Court, the respondents in their factual statement only seek latter-day excuses for conduct which would crush any competitor. The logical and rational answer is simply that the respondents would not have done the acts proven here had they been assured of the demise of these petitioners for other reasons. But the issue is one of fact for the jury.

As stated by this Court in *Wilkerson v. McCarthy*, 336 U.S. 53 (1949):

> "It is the established rule that in passing upon whether there is sufficient evidence to submit an issue to the jury we need look only to the evidence and reasonable inferences which tend to support the case of a litigant against whom a peremptory instruction has been given."

Under respondents' interpretation of the *Eastman Kodak*, *Story Parchment* and *Bigelow* cases, as a matter of law there can be no recovery without proof of a complete inability to proceed in market entry during every moment of the conspiracy's march to a complete one hundred percent monopolization. Thus respondents look upon the fact that petitioners did receive some independent oxide production as a great insulator from liability despite the showing that the failures of these very suppliers were attributable to illegal practices of the respondents in their preemption of the field.

Respondents would further categorize *Bigelow* as not really a causation case. But this Court stated:

> "Hence, it is said, petitioners' evidence does not *establish the fact of damage*; and that further, the standard of comparison which the evidence sets up is too speculative and uncertain to afford an accurate measure of the amount of damage.
>
> • • •
>
> In each case we held that the evidence sustained verdicts for the plaintiffs, and that in the absence of more precise proof, the jury could conclude as a matter of just and reasonable inference from the

> proof of defendants' wrongful acts and their tendency to injure plaintiffs' business, and from the evidence of the decline in prices, profits and values, not shown to be attributable to other causes, that defendants' *wrongful acts had caused damage* to the plaintiffs." (327 U.S. 263-264.) (Emphasis added.)

But the petitioners were not bound to show a complete inability to obtain all supplies.

In *Standard Oil Co. v. United States*, 221 U.S. 1, (1910) it was held that defendants' failure to control crude oil and the abundance of said oil showed *not* that there was little chance of success for monopolization, but rather that control of the refined product as a matter of law carried with it control of the field. (Id. at 77.)

In *Associated Press v. United States*, 326 U.S. 1 (1945) this Court rejected the argument that the availability of alternative news supply justified exclusionary by-laws.

American Tobacco Co. v. United States, 328 U.S. 781 (1946) established that in a Section 2 case it is not necessary to establish power and intent to exclude *all* competitors, or to show a conspiracy to exclude *all* competitors.

In *W. W. Montague v. Lowry*, 193 U.S. 38 (1904) it was held that a combination could *not* claim that there was no showing of injury simply because the competitor could easily join the defendants' association, and that a combination could not assume the right to tell businessmen how to exercise their right to compete.

In *Eastman Kodak Co. v. Southern Photo Materials Co.*, 273 U.S. 359 (1927) the ability of the plaintiff to obtain a competitive line did not prevent the award of

extensive damages arising from the loss of the Kodak line even though it was urged that the evidence showed that the total business of the plaintiff earned more money after the loss of the Kodak line.

In *C. E. Stevens Co. v. Foster & Kleiser Co.*, 311 U.S. 255 (1940) it was held that plaintiff need not aver that he was wholly unable to buy posters in order to claim damages under the anti-trust laws.

In *Keifer-Stewart Co. v. Joseph E. Seagrams & Sons*, 340 U.S. 211 (1950) recovery was allowed against two conspirators in spite of the availability of dozens of other available liquor supplies.

In *Klor's Inc. v. Broadway Hale Stores, Inc.*, 359 U.S. 207 (1959) the right to a trial by a trier of fact was allowed despite the availability of alternative brands to a household appliance dealer.

Thus, in the instant case, the fact that there were some vanadium oxide millers available which were utilized by petitioners to their best business judgment does not in any manner allow these respondents to claim as a matter of law that their conspiracy's progress did not harm petitioners. The proof in this case showed that these independent oxide millers, i.e., Gateway, Morrison, Blanding, Nisley and Wilson and finally North Continent were all thwarted in their production of oxide by the conspiracy itself. The fact that in a given month, in a given time, petitioners had some supply available to them simply converts the action from one based on attempts to enter the market without the opportunity to have any contacts allowing entry, into one of exclusion of an actual com-

petitor. See *William Goldman Theatres, Inc. v. Loew's, Inc.* (3 Cir. 1945), 150 F.2d 738, involving a refusal to sell first run pictures causing plaintiff's theatre to remain closed, in which the Court allowed extensive damages for the closing of a first run theatre which could have acquired lesser runs.

2. Respondents were bound not to conspire to refuse to deal with petitioners and each was required to sell oxide.

Respondents further urge that petitioners rejected plans from independent millers and others to expand their production or to open a new venture.

These offers from independents, even if any were made, patently have no materiality to the legal principle that respondents were themselves under an obligation to deal with petitioners, to sell them oxide, and not to discriminate against them. The record showed that respondents were monopolists. Union Carbide possessed 77% control of the domestic supply of vanadium oxide (Pl. Ex. 136, R. 1253), VCA held 64.7% of the sales of ferrovanadium. (Pl. Ex. 138, R. 1256.) As monopolists, respondents were under a duty to deal with petitioners and not to discriminate against them. *United States v. Aluminum Co. of America* (2 Cir. 1945), 148 F.2d 416; *United States v. Griffith*, 334 U.S. 100 (1948). But such was not done in the instant case. The record shows blatant discrimination. VCA was being supplied its vanadium oxide needs by its co-conspirator Union Carbide at below market prices. (Pl. Ex. 8, R. 2073-2074, 117; Pl. Ex. 46, R. 2128, 294; Pl. Ex. 150, R. 2340, 1583.) Yet petitioners' requests were consistently denied. (Table, Pet. Op. Br., p. 59.)

3. The so-called "lost opportunities" were in fact excluded by illegal means.

Once respondents had entered into their cartel arrangement of mutual assistance, they were in no legal position to demand that competitors, targets of their conspiracy, finance new mills or enter into hazardous expansions, especially when existing independent mills were being eliminated by the monopoly. *United States v. Aluminum Co. of America* (2nd Cir. 1945), 148 F.2d 416; *Gamco, Inc. v. Providence Fruit & Produce Bldg.* (1st Cir. 1952), 194 F.2d 484; *American Federation of Tobacco Growers v. Neal* (4th Cir. 1950), 183 F.2d 869.

For example, respondents claim that the National Vanadium Corp. was an opportunity which petitioners failed to utilize for an independent source of oxide. (VCA Brief, p. 32; UCC Brief, p. 34.)

But at the time respondents claim petitioners should have utilized this company as a source of supply, it was writing to Mr. Leir:

> ". . . You will probably not be surprised to hear that the U.S. Vanadium Corp. are endeavoring to tie up our product if we are successful and also to block us in every way possible if we do not line up with them." (Df. V.'s Ex. V-1-Q, R. 2508.)

The other alleged "lost opportunities" i.e., Blanding, Morrison [Loma] and Ackermann (VCA Brief, p. 32; UCC Brief, pp. 32-33) were shown to have been directly thwarted by the respondents. See Petitioners' Opening Brief pages 34 to 46 for the evidence as to how these mills were eliminated by respondents.

Respondents cite no authority for their proposition that conspirators to a monopolization can defend an antitrust action by showing that the excluded competitor did not invest in all offers to deal. Actually the law is directly to the contrary for monopolists cannot extract a monopolist's advantage. *Associated Press v. United States*, 326 U.S. 1 (1945).

B. The record contained numerous acts of impact or contact on manufacturing associates and a successful monopolization which prevented the entry into the vanadium industry with substitute raw materials or oxides.

1. **APEX: The destruction of the independent mills and respondents refusal to deal with petitioners caused a lack of supplies to Apex and its failure, thereby depriving petitioners of a manufacturing associate.**

Respondents represent in their briefs that Apex, throughout its operations, had all the oxide it needed and that a plentiful additional supply was available to it. (VCA Brief, p. 30.) They claim that Mr. Leir and Apex erred in not stockpiling oxide prior to the start of the Apex contract in August or September, 1940. Respondents claim that Mr. Leir was wrong in recommending that the 20,000 pounds of oxide expected to come from Blanding in September and October be resold. (Id. p. 31 citing Df. V.'s Ex. V-1-J, R. 2498-2499.) But Mr. Leir expected to obtain production from the Rifle mill and two new expected mills in Arizona and Los Angeles. (Id.) Neither was able to produce oxide. (Pl. Ex. 18, R. 134, 125. Note: The Rifle mill shown thereon as the USV Rifle plant is not the small plant referred to in Mr. Nisley's testimony, R. 639.) In 1941 only de minimis sales of oxide were made to others. (Pl. Ex. 119, R. 2212, 1065.)

In respect to the Apex association, respondents also claim that petitioners did not really request oxide at all from the respondents and if they did, they did not "follow" these requests through. (VCA Brief, pp. 32-33.) This is completely contrary to the record. A request to do business with Electromet was made in June 14, 1941. (Pl. Ex. 77, R. 176-177, 776.) This was followed by a request that petitioners be allowed to convert oxide for the account of respondents. (Id., and Pl. Ex. 132, R. 2261-2262.) This was followed by a request through OPM that respondents sell petitioners oxide. (Pl. Ex. 132, R. 2265.) It is manifest that the petitioners were "following up" their requests. It is also important that petitioners never did get their supplies.

Next, we are told by respondents that Shattuck or North Continent was gutting Apex with supplies of between 12,000 to 18,000 pounds of oxide every couple of weeks in October, 1941. (VCA Brief, p. 34, citing Df. V's Ex. V-1-S; R. 1155-1157.) But the record showed that in September, 1941, Apex informed petitioners that it was not getting a sufficient quantity of oxide to run facilities *on half time*. (Df. V's Ex. V-1-Q; R. 2512A.) The record also shows Apex was refused supplies by respondents and was turned down by the respondents after positive requests through the OPM were scoffed at by the respondents. The record shows that nevertheless petitioners persisted in their efforts to acquire oxide as did Apex (R. 1158) and that during October to December, 1941 there was a frantic but futile attempt by petitioners to obtain necessary oxide supplies for their Apex arrangement. (Pl. Ex. 144, R. 2266, 1313; Pl. Ex. 145, R. 2270, 1315; Pl. Ex. 146, R. 2271, 1320.)

In its Brief, respondent VCA conveniently skips these requests for oxide made during the period October to December, 1941, just prior to Apex's capitulation. It relegates these important requests to footnote 16. (VCA's Brief, p. 34.) Respondents simply do not come to grips with the admissions by Apex which appear in this record that Apex specifically told the United States government agencies in requesting oxide that the reason for the fact they were not producing at capacity was *because of lack of raw material.* Respondents seek to weaken the effect of this testimony by citing statements by Mr. Bayer to claim that these referred to "future operations" and "distant date". (R. 1358.) But the record shows that Mr. Bayer specifically testified that Apex was not operating at full capacity because of lack of raw materials. The record shows:

> "Q. Well, now, specifically, the statement that you make in that letter with respect to not operating full capacity because of a lack of raw materials, that statement was true when you made it, was it not, sir?
>
> A. As far as I know, yes." (R. 1319.)

Also, it is to be remembered that 50,000 pounds of oxide on hand would still be only one half of estimated capacity for one month, because the oxide ratio is about two pounds for one pound of V. (Pl. Ex. 146 at R. 2275.)

In this respect, neither respondent has shown that petitioners ever had a steady, dependable source of supply. Certainly, sporadic shipments which got away from respondents or which they made available at strategic times when their activities had eliminated petitioners' customers

cannot protect them from the obvious implications of the testimony in this record that respondents conspired to eliminate all sources of supply and were successful in this respect.

Respondents claim that the VCA-Apex arrangements involved only the offer of equipment by Apex to VCA. (VCA's Brief, pp. 35-36.) The memorandum of April 14, 1942 (Pl. Ex. 62, R. 168), clearly shows that Apex offered VCA the names of its suppliers and promised to stay out of the vanadium business. The statement appearing in the memorandum that "He further stated that he would furnish us with the names of all their suppliers of Ores and Oxide, the principal ones apparently being Shattuck Chemical Company and Nisley & Wilson" creates an inference this information was supplied by Apex after VCA's request and shows that Mr. Christiansen was being examined as to Apex's future course of conduct. The inference is clear that upon being satisfied with the fact that Apex would stay out, "We had an interesting discussion concerning low copper grained aluminum . . ." (Id., R. 169.) It must be remembered that the negotiations were being pushed by VCA with Apex at a time when Apex had a binding legal 14-year contract with petitioners.

The purpose of these meetings is clear from the letter from Mr. Sterling (VCA) to Mr. Kett (VCA), wherein Mr. Sterling states (Pl. Ex. 62, R. 166):

> "Apex Smelting Co.—It is nice we won't have to worry about them after July 1st." (R. 166.)

In their opening brief, petitioners felt that the implications of this transaction were obvious. However, in view

of respondents' attempt to rationalize this transaction as an innocuous sale of equipment, petitioners feel it should be characterized for what this transaction actually was, a commercial bribery which had as its reward Apex's withdrawal from the vanadium industry and its abandonment of its relationship with petitioners.

Respondents would also ignore the devastating effect on Apex caused by Apex's loss of the Blanding production. The contemporaneous letters of Mr. Leir and Apex show that this was a crucial matter to Apex. Mr. Leir wrote Mr. Bigler on January 6, 1942:

> "In any case, we wish to say that it is of course the tendency of the U.S. Vanadium and the Vanadium Corp. of America to firmly establish their monopoly by getting hold of all sources of vanadic acid, so as to impede the operations of their sole competitor, the Apex Smelting Company." (Pl. Ex. 131, R. 2237.)

Six days later, on January 12, 1942, Apex wrote to Blanding:

> "We have your letter of January 9th, and we regret exceedingly to note that you are compelled to dispose of your material in your district, as we enjoyed doing business with you, and we were looking forward *to receiving increased amounts from you.*" (Pl. Ex. 131, R. 2239.) (Emphasis added.)

In February 23, 1942, Blanding wrote to Apex that "We regret that we are unable to sell our product to you, however, you are aware of our set-up and the fact that we are merely operating under a lease". At that time Apex, it may be inferred, knew that Blanding was talking of VCA. (R. 2241; Pl. Ex. 131, R. 2237, 1242; Pl. Ex. 157, R. 2341.

1791.) The tactics used by VCA to acquire this lease, and thereby corral the Blanding production for VCA, eliminate Blanding as a supplier to petitioners and Apex are set forth in Petitioners' Opening Brief at page 34.

So it was that Apex could not continue, being faced with losses in a business which had inadequate supplies to permit it to operate successfully. (Pl. Ex. 144, R. 2266, 1313; Pl. Ex. 145, R. 194, 1315; Pl. Ex. 146, R. 2270, 1320; Df. V.'s Ex. V-1-Q, R. 2512A, 1145; Bayer, R. 1301, 1302, 1305, 1313, 1319; Leir, R. 1070, 1079.)

After the loss of Apex, petitioners were never able to arrange for the production of ferrovanadium on a sound dependable basis.

2. **CLIMAX: The proof of an existing contractual arrangement with Climax supports the inference that continued production would have been sustained but for respondents' threats of reprisal.**

The record contained proof of continued acts of impact and contact on petitioners' business after the loss of Apex. Petitioners offered to prove that they were told to stay away from Climax by Union Carbide, who, in this respect, engaged in the boldest kind of conduct in restraint of trade. It is no answer to say that there was no evidence of the effect of this threat when it is admitted that prior to the threat, petitioners had entered into an arrangement with Climax under which Climax was to produce 20,000 pounds of ferrovanadium for petitioners' account. (Pl. Ex. 111, R. 182, 1014.) Since the boast of the respondents is that they supplied 10,000 lbs. of vanadium oxide for this toll milling, it would be only honest for them to explain why if Union Carbide was so helpful in supplying

the 10,000 lbs. they could not continue to supply petitioners. Instead, respondents attempt to direct this Court's attention to an argument that petitioners did not show that the threat was successful. Yet the threat by Carbide was coupled with a point blank denial by Electromet, its subsidiary, to supply petitioners with 10,000 lbs. of V contained in pentoxide per month. (Df. U's Ex. U-4-M, R. 581, 955.) The record shows that in 1943, a year of great demand for ferrovanadium, in a period when sales were no problem, petitioners were able to sell only 10,000 lbs. of ferrovanadium for the obvious reason that they had no production to sell. (Pl. Ex. 119, R. 2212, 1089.) We are told by respondents that not a single piece of paper suggests that the threats were ever carried out. (VCA Brief, p. 40; UCC Brief, p. 54.) But a threat of reprisal is completed when the threat is made to the competitor. The threat is a completed overt act illegal in itself under the antitrust laws. *United States v. Kissel*, 218 U.S. 601 (1910). As part of a continuing conspiracy it is pro tanto injurious. *Albert Pick-Barth Co. v. Mitchell Woodbury Corp.* (1 Cir., 1932), 57 F.2d 96.

3. **IMPERIAL: The specific reason assigned by Imperial for its unwillingness to produce ferrovanadium was its inability to obtain ample sources of vanadium-bearing materials.**

The ultimate significance of Imperial's refusal to produce vanadium products is that it, a leading American corporation, corroborated petitioners' contention that entry into the vanadium industry required a steady, certain, dependable source of supply. Imperial wanted dependable sources "from whom we can always obtain vanadium bearing materials at a price which will enable

us to manufacture." (Pl. Ex. 114, R. 185, 1022.) On December 5, 1944, Imperial wrote to petitioners:

> ". . . we would have to have more confirmation than we have been able so far to obtain that there are, and always will be, ample sources of vanadium bearing material, . . ." (Id., R. 185.)

Later, on April 5, 1945, Imperial stated:

> "The viewpoint we have now is that this whole production of Vanadium Oxide is dependent largely upon having a satisfactory source of supply of raw material in sufficient volume." (Pl. Ex. 115, R. 2179, 1023.)

Imperial was interested in making both its own vanadium oxide and ferrovanadium or in making the ferrovanadium from vanadium oxide purchased at a higher market price. (Pl. Ex. 115, R. 2181.)

Bodies of vanadium bearing ores were known to Imperial, but these offered no substitute for an assured, dependable source of uniform ores or oxides. (Wolf, R. 883-884, 891.) The basic fact is that the monopolization of the Plateau had reduced the petitioners and Imperial to exploring all sorts of alternatives which Imperial found to be so inadequate, undependable and insufficient that it could not enter into the vanadium business. The monopolization thereby was a complete success. Control of the basic American mills and ore supply gave respondents control over the vanadium industry in much the same fashion that control over the virgin aluminum ingot ore gave the Aluminum Co. control over the seconds market. *United States v. Aluminum Co. of America* (2 Cir. 1945), 148 F.2d 416.

The other sources of vanadium supplies were shown not to be a substitute for respondents' monopoly power, which in 1943 was 100% in both the domestic millsite production of vanadium oxide and ferrovanadium. The rejection of production by Imperial then also answers the other possibilities respondents claim were open to Leir. (VCA Brief, p. 43.) Respondents' citation to Ex. U-4-B, R. 936-937 shows that in January 1944 the only material available to petitioners was 50,000 lbs. of oxide without possibility of any more. Petitioners deemed that the blocks or lumps of oxide at Durango mentioned in this memorandum would not be ground by Carbide. (Id.)

4. **DURANGO:** Petitioners have always asserted that the acquisition of the Durango mill interfered with the development of the plans of the independents to form an association.

In their briefs respondents claim that petitioners are now for the first time claiming interference with the forming of an independent association on the Plateau by Leir and other independents. (UCC Brief, p. 56; VCA Brief, p. 43.)

In Petitioners' Opening Brief in the Ninth Circuit it was asserted, at page 28:

> "Mr. Leir attended meetings in March, 1944, with independent operators with respect to an independent mill site on the Colorado Plateau. (Tr. 1774-1780; see Plfs' Ex. 158, dated March 17, 1944, Tr. 23533). Nothing could be materialized."

And in their Reply Brief in the Ninth Circuit petitioners urged the same matters appearing at page 28 of their Petition for a Writ of Certiorari in this Court. It was expressly stated,

"In so doing they thwarted Mr. Leir's plans to form an independent cooperative association of miners and millers."

The record is clear that respondents learned of the meeting of Leir, Bigler, Sitton and others in the middle of February, 1944. (Df. V's Ex. V-2-K, at R. 2536.) Bigler specifically remembered that Sitton was at this meeting, which included the discussion of the formation of an association and the building of an independent mill. (R. 1776.) USV sought to discourage any possibility that Brinker (Blanding) and Sitton would have to acquire the Durango mill. The wire from Burwell to Haldane advising him that Brinker and Sitton were planning to acquire the Durango plant is dated February 29, 1944. (Pl. Ex. 37, R. 148, R. 243.) Burwell specifically testified under oath that the only reason for the acquisition of the Durango mill was to keep control of the production of vanadium and to keep outsiders out of the vanadium business. (R. 246.)

The record, taken as a whole, shows that respondents were always at the opportune place at the opportune time to preempt competition and to stifle any competitive operation which was showing any signs of succeeding. However, respondents claim these preemptions affected no one and had no effect on the market place. Yet these preemptions resulted in the complete effective domination of the market and the forestalling of all competition as condemned by the *Aluminum* case, which was affirmed by this Court in *American Tobacco Co. v. United States*, 328 U.S. 781 (1946).

Each passing year showed the elimination of competitive opportunities. First petitioners' suppliers were lost in 1940, 1941. Then petitioners' associate, Apex, was lost. Then during 1942 to 1944 all the independent mills were thwarted on the Plateau. And finally petitioners had to rely on Imperial's undertaking the production of vanadium oxide and ferrovanadium from sources outside the United States because of respondents' monopoly power. (R. 896.) This substitute was held by Imperial to be futile. There is no question that by 1945 respondents had successfully eliminated any possibility of manufacturing oxides and ferrovanadium in competition to them.

C. The proof of damages or the attempted proof of damages by petitioners complied with applicable law.

The history of petitioners' business was offered.

Respondents now for the first time assert that petitioners have avoided and omitted all pertinent evidence relating to the asserted loss of sales and profits. (Brief of UCC, p. 57 et seq.) Much effort is made by respondents to show that petitioners did not prove they lost sales. But petitioners proved much more. Petitioners proved that they lost their manufacturing associates and were excluded from all aspects of an industry, i.e. production, distribution and sales.

Respondents also assert petitioners failed to show net profits and that there was a failure to allocate operating expenses. But petitioners showed that their business was comparable to the loss of gross profits in a motion picture antitrust case. Leir specifically testified that overhead would not have increased had he sold vanadium products.

(R. 1110-1111.) The net profit figures of petitioners' overall business were erroneously excluded by the trial Court and this was assigned as error. (Pl. Ex. 121 for Id., R. 469.)

In summary the evidence showed as follows: (1) A decline in sales and profits after 1942 and a further showing of inability to produce, distribute or sell vanadium products. (Pl. Ex. 119, R. 2212, 1089; Pl. Ex. 120, R. 2213; R. 1094.) (2) Profits were made during the Apex period when petitioners had production. (Id.) (3) The spectacular comparison of the growth of sales of fluorspar. (Pl. Ex. 123 for Id. only, R. 536.) (4) The comparison of the growth of the Continental Ore Group in the post war period. (Pl. Ex. 124 for Id. only, R. 537, et seq.)

The jury would have had before it the complete balance sheets and profit and loss statements of the petitioners, the comparison of the free market aspects of their business as contrasted to the vanadium portion of their business, the production, sales and profits of respondents, the expert testimony of men such as Leir and Wolf (men with a proven ability to succeed), the production of Apex and its relation to the total production of ferrovanadium (Pl. Ex. 139 for Id. only, R. 543), the complete record of total production of ferrovanadium by respondents from 1939 to 1949 and the estimated loss of profits based on a gross profit percent of sales factor. (Pl. Ex. 141 for Id., R. 545.) Petitioners produced substantially more evidence than that upheld by this Court in *Bigelow v. RKO Radio Pictures*, 327 U.S. 251 (1946)—the decline of sales, profits and values and the loss of sales, profits and values in the restrained market as contrasted with the free market.

Respondents place great reliance on *Herman Schwabe Inc. v. United Shoe Machinery Corp.* (2 Cir. 1962), 297 F.2d 906. But respondents successfully excluded petitioners net profit history upon which petitioners relied to establish damages and which the *Schwabe* case found lacking. (R. 1083-1088; 1095-1096; Pl. Ex. 121 for Id. only.)

Petitioners attempted to follow the standards set forth in this Court's opinions and in *William H. Rankin Co. v. Associated Bill Posters of U.S.* (2 Cir., 1930), 42 F.2d 152 and *Locke v. Stearns, Welch Grape Juice Co.* (4 Cir., 1917), 240 Fed. 114. Respondents objected below.

Petitioners' proof of damages thus closely followed cases specifically referred to and approved by the Second Circuit in the *Schwabe* case.

Petitioners did as the *Schwabe* case suggested in footnote 7. They took their actual proportions of production during the Apex period as contrasted to the production of respondents and projected this forward until 1949.

Mr. Wolf specifically testified that fluorspar afforded a reliable guide as to what vanadium sales might have been in the absence of restrictions. R. 855 stricken.

Unlike the plaintiffs in the *Schwabe* case, petitioners had a demonstrated production and sales record in vanadium which declined and became nil.

III

THE BIGELOW CASE REJECTED THE USE OF MINORITY VIEW "LEGAL CAUSE" CONCEPTS USED IN NEGLIGENCE CASES IN ACTIONS BASED ON THE INTENTIONAL INTERFERENCE WITH THE FREE MARKET AND A BREACH OF CONGRESSIONALLY IMPOSED DUTIES.

The plain issue before this Court in *Bigelow* was whether or not an illegal conspiracy to establish a fixed system of film distribution was the proximate cause of loss of patronage. The Seventh Circuit opinion specifically stated that the issue was one of the fact of damage. (150 F.2d 877.) It attempted to distinguish the *Story Parchment* decision on this ground. In the *Bigelow* case, the lower Circuit Court interpreted the *Story Parchment* and the *Eastman Kodak* cases in precisely the same manner as the respondents do here.

But this Court in *Bigelow* compared the private antitrust action to cases of intentional wrongdoing where upon the showing of liability, the doing of an intentional act plus impact or contact, the wronged party is to be placed in as good a position as if the wrong had not been done. Thus in *Martin v. Herzog* (126 N.E. 814, 228 N.Y. 164), cited by the learned Court below, Judge Cardozo specifically declared that the result would have been different if the defendants had run into the buggy purposely. (126 N.E. 816.)

In an intentional tort, damages are awarded for all the natural consequences of the wrongful act. To speak in terms of "causation" in such a setting by looking upon petitioners' business judgments as a superseding or intervening cause manifestly changes the private antitrust case from a case of judicial enforcement of legislative pro-

nouncement into a judicial analysis of a plaintiff's business judgment viewed from a hindsight position. But such an analysis assumes liability on the part of the defendants and, if applied, allows the wrongdoer to violate the anti-trust laws with impunity. We respectfully submit that a conspiracy to monopolize followed by predatory acts committed against the business of a competitor attempting to compete creates liability and the right to damages, based on relevant data, when it is shown that the competitor is unable to enter the market place after persistent and bona fide efforts and a prior history of sales and profits. *Story Parchment Co. v. Paterson Parchment Paper Co.*, 282 U.S. 555 (1931).

IV

PETITIONERS' OFFER OF PROOF WAS SUFFICIENT TO PRESENT THE ISSUES TO THE COURT.

Respondents' argument as to petitioners' Offer of Proof concerning respondents' interference with petitioners' business in Canada is totally without merit.

From the first day of trial in this case, respondents took the position that petitioners could not offer any evidence on their elimination from the Canadian market. (R. 125.) The trial Court adopted this position and sustained any and all objections made by respondents concerning any reference to the Canadian exclusion. Counsel for respondent Carbide stated specifically that "the Canadian situation should not be a part of this lawsuit". (R. 801.) The Court agreed, and, as a result, excluded all references in

that respect. Now respondents claim that petitioners did not make a complete offer of proof because it lacked certain specifics which respondents themselves prevented petitioners from showing because they objected to the Canadian exclusion and any references to it.

Be that as it may, petitioners respectfully submit that the offer of proof by petitioners on the Canadian exclusion of petitioners showed what the substance of the proposed evidence was, which is all that is required in any offer of proof. *Iva Ikuko Toguri D'Aquino v. United States* (9 Cir. 1951), 192 F. 2d 338, 374.

The applicable rule was stated by this Court in *McCandless v. United States* (1936), 298 U.S. 342, 346, as follows:

> "An offer of proof cannot be denied as remote or speculative because it does not cover every fact necessary to prove the issue. If it be an appropriate link in the chain of proof, that is enough."

There is no question whatsoever in this case as to what petitioners offered to prove. The offer of proof speaks for itself and requires no analysis such as respondents give it in their briefs.

None of the cases cited by respondents in their briefs, particularly those appearing at page 48 of Respondent Carbide's brief, are in point. The cases cited there, with the exception of *Talon, Inc. v. Union Slide Fastener, Inc.* (9 Cir. 1959), 266 F. 2d 731, are cases where *no* offer of proof was made, which is not the case here. The *Talon* case involved a rejected offer to prove hypothetical prices, which is also not involved here. There was nothing hypothetical in petitioners' offer of proof.

It is illogical for respondents to argue that the offer of proof made as to the Canadian exclusion was ineffective because it was not complete in all minutiae in view of the fact that the applicable authorities hold that "a formal offer of proof is not necessary where the record shows, either from the form of the question asked or otherwise what the substance of the proposed evidence is" *Iva Ikuko Togari D'Aquino v. United States, supra,* at page 374; *Meaney v. United States* (2 Cir., 1940), 112 F. 2d 538. Cf. *Buckstaff v. Russell & Co.*, 151 U.S. 626 (1894).

As stated by Judge Frank in *Hoffman v. Palmer* (2 Cir. 1942), 129 F. 2d 976, 994:

> "Such an offer of proof, while provided for by Federal Rules of Civil Procedure, rule 43, 28 U.S.C.A. following section 723c (cf. 3 Moore's Federal Practice, 3076, 3077), is not absolutely essential, if it is otherwise entirely clear what the alleged error is. Meaney v. United States, supra."

It cannot be seriously questioned that this record shows clearly what the alleged error is and that the offer of proof more than adequately establishes the issue presented by the trial court's refusal to admit the Canadian evidence.

In addition, Mr. Arrouet's statements were admissible on various grounds:

(1) They were made by an agent who, petitioners showed, was prima facie authorized to speak for Electromet. 2 Mechem *On Agency* (2d ed.), §§ 1778, 1779; (2) They were statements made as part of the res gestae; i.e., to explain the conduct of Electromet in settlement of

petitioners' complaint and protest against Electromet. 2 Mechem *op. cit. supra* §§ 1781-1783; and (3) They were admissible as affirmative circumstantial evidence to show that petitioners were entitled to rely on Arrouet's statements in the conduct of their business.

The testimony in the record is uncontradicted that after petitioners registered a complaint to Electromet in New York, it voluntarily called petitioners and asked them to come in to discuss the complaint, telling them where to call and the person to whom they were to speak. Wolf followed their directions. Wolf knew Arrouet and it was respondents who designated him as the individual authorized to act and speak for them and to represent them in this matter.

General Finance, Inc. v. Stratford (D.C. Cir. 1940), 109 F. 2d 843 is squarely in point. In that case, the Court stated at page 843:

> "Appellant objected to this testimony, and contends that the statements of Hausenblus should have been excluded as hearsay. We think they were properly admitted against appellant, as admissions which appellant had authorized Hausenblus to make in its behalf. 'Where one person is sent by another to a third party for information in reference to an uncertain or disputed matter, the person sending is bound by the declarations of the party to whom he was referred, as if they were made by himself', i.e., they are admissible in evidence against him. Allen v. Killinger, 8 Wall. 480, 486, 487, 19 L. Ed. 470. 'The admissions of a third person are receivable in evidence against the party who has expressly referred another to him for information in regard to any uncertain or disputed fact.'" (Citing cases.)

This case is consistent with the holding in *State Farm Mut. Auto Ins. Co. v. Porter* (9 Cir. 1950), 186 F. 2d 834, in which the Court stated at pp. 841-842:

> "We believe a jury could well find as a fact that a person employed as a claim adjuster had at least apparent or ostensible authority to adjust claims and such would include negotiations for settlement. Special instructions as to what he was to do on this particular occasion, not divulged by him to the other party, would not constitute a limitation on his real or apparent authority . . . Where the special character of the agency is not known, and the principal has clothed the agent with apparent powers, strangers, in dealing with the agent, may assume that such apparent powers are possessed. The principal cannot, by private communications with his agent, limit the authority which he allows the agent to assume" (Citing *Robinson v. American Fish & Oyster Co.*, 17 Cal. App. 212, 219, 119 P. 388, 389.)

See also *Johnson v. J. H. Yost Lumber Co.* (8 Cir. 1941), 117 F. 2d 53; Restatement of Agency (2d ed.), § 286.

It is fundamental that whether a person is an agent and the scope and extent of his authority are questions to be decided from all the facts and circumstances and that these questions are to be decided by the trier of fact. 2 *Am. Jur., Agency*, § 454; 2 *Mechem On Agency* (2d ed.) § 1785. At the very least, Arrouet's authority, as well as the scope of that authority, were questions which were properly determinable by the trier of fact under proper instructions by the Court. 2 *Am. Jur., Agency*, § 454.

V

THE CONSPIRACY OF RESPONDENTS TO MONOPOLIZE THE VANADIUM INDUSTRY AND TO ELIMINATE ALL COMPETITION, INCLUDING PETITIONERS', TOOK PLACE IN THE UNITED STATES. THE ELIMINATION OF PETITIONERS' CANADIAN CUSTOMERS BY PREVENTING PETITIONERS FROM EXPORTING VANADIUM INTO CANADA TOOK PLACE IN THE UNITED STATES. THE FACT THAT RESPONDENTS USED ONE OF THEIR CANADIAN SUBSIDIARIES WHICH HAD AN AGENCY AGREEMENT WITH CANADA TO ASSIST THE ELIMINATION DOES NOT GIVE RESPONDENTS ANTITRUST IMMUNITY.

A. The Sherman Act reaches the private use of lawful powers delegated by a foreign government when used to interfere with domestic commerce and stifle American industry pursuant to a conspiracy to create a monopoly in the United States.

The elimination of petitioners from Canada was merely part of an overall conspiracy to monopolize the whole vanadium industry. Even if petitioners' elimination from Canada were lawful, which it was not, since it was part of an illegal scheme to monopolize the whole industry, the entire combination and conspiracy is stricken down by the Sherman Act. (*United States v. Bausch & Lomb Optical Co.* (1944), 321 U.S. 707; *American Tobacco Co. v. United States* (1946), 328 U.S. 781, affirming 147 F. 2d 93 (6 Cir. 1944); *Aikens v. Wisconsin*, 195 U.S. 194 (1904). The record shows that the conspiracy started in 1933, long before any foreign government agency was involved, and continued on at least until the time of the complaint. Part of that over-all conspiracy was the elimination and destruction of petitioners' business, including shipments into Canada.

In spite of respondents' efforts to the contrary, petitioners repeat that this is not an action against the

Canadian government nor against the Office of Metals Controller of Canada. It is an action against two American companies for activity *in the United States* with the purpose of destroying petitioners' business in the United States. The conduct which created and brought about this specific result was carried out in the United States, by United States companies, by United States actors. The Canadian subsidiary, and its discretionary power to select the persons from which it would purchase vanadium were used by the illegal combination created and operated in the United States to insure the demise of petitioners. (Pl. Ex. 93, R. 451, 821.)

Respondents rely on *American Banana Co. v. United Fruit Co.*, 213 U.S. 347 (1909), which involved the confiscation by the Costa Rican government of plaintiff's plantation and properties in Costa Rica. It is respectfully submitted that the limited holding in *American Banana* is not applicable to the facts of this case, and that *United States v. Sisal Sales Corp.*, 274 U.S. 268 (1927), is controlling. In the *Sisal* case, this Court held illegal a conspiracy to monopolize foreign commerce in sisal. The Court noted that laws favorable to the Mexican agents in the conspiracy were solicited and secured from the governments of Mexico and Yucatan, and that the governments of both Mexico and Yucatan were persuaded to pass discriminatory legislation and all other buyers were forced out of the market. Despite this government involvement, the Court stated (p. 276):

> "Here we have a contract, combination, and conspiracy entered into by parties within the United States and made effective by acts done therein. The fundamental object was control of both importatio

and sale of sisal and complete monopoly of both internal and external trade and commerce therein. The United States complain of a violation of their laws within their own territory by parties subject to their jurisdiction, not merely of something done by another government at the instigation of private parties. *True, the conspirators were aided by discriminating legislation, but by their own deliberate acts, here and elsewhere, they brought about forbidden results within the United States. They are within the jurisdiction of our courts and may be punished for offenses against our laws.*" (Emphasis added.)

See also: *United States v. Aluminum Co. of America* (2 Cir. 1945), 148 F.2d 416; *United States v. Pacific and Arctic Railway & Navigation Co.*, 228 U.S. 87 (1913); *United States v. National Lead Co.*, 63 F.Supp. 513, (S.D. N.Y. 1945) aff'd 332 U.S. 319 (1947); *United States v. Timken Roller Bearing Co.*, 83 F.Supp. 284 (N.D. Ohio 1949), aff'd 341 U.S. 593 (1951); *Steele v. Bulova Watch Co.*, 344 U.S. 280 (1952); *Sanib Corporation v. United Fruit Company* (S.D. N.Y. 1950) 135 F.Supp. 764; *In re Grand Jury Investigation of the Shipping Industry* (D.D.C. 1960), 186 F.Supp. 298, 319; *United States v. Imperial Chemical Industries* (S.D. N.Y. 1952), 105 F.Supp. 215.

B. An agent of a foreign country engaged in purchasing United States commodities is not afforded sovereign immunity. Manifestly if a government corporation is not afforded immunity a purely private commercial corporation cannot acquire immunity.

Respondents advance the claim of foreign governmental immunity. But the Canadian government's appointment

of Electromet of Canada to acquire vanadium products from the United States did not authorize it to carry out such purchases so as to restrain trade or monopolize trade in violation of the antitrust laws. *United States v. Deutsches Kalisyndikat Gesellschaft* (S.D. N.Y. 1929), 31 F.2d 199.

The claim of governmental immunity, we respectfully submit, seeks to attach governmental authority to bold practices which cannot be attributed to Canadian officials. Canadian officials referred the complaints of petitioners to Union Carbide's subsidiary Electromet in New York City. (Pl. Ex. 80, R. 438, 805.) The government of Canada through the Office of Metals Controller cannot be deemed to have had any knowledge of the agreements of the respondents to control and dominate the vanadium industry.

Respondents have not and cannot point to any evidence in the record showing that the Canadian government authorized Union Carbide to conspire with VCA to destroy petitioners, nor any ratification of that conspiratorial conduct. Petitioners offered to prove that the Canadian government was totally oblivious to the purpose for which Electromet of Canada decided not to deal with petitioners (R. 828-831) and offered to prove that Union Carbide, pursuant to its conspiracy with VCA, directed Electromet of Canada not to purchase from petitioners. (R. 826-828.) Whereas petitioners sold to Canadian customers prior to the appointment of Electromet of Canada (Pl. Ex. 79, R. 2174), after the appointment *only VCA and Union Carbide* were able to sell and ship to Canadian customers. (Pl. Ex. 17, R. 127, 133.)

Just like instrumentalities of the United States, corporate entities of foreign countries which do business in this country are subject to the laws of the United States, including the antitrust laws. (*United States v. Deutsches Kalisyndikat Gesellschaft* (S.D. N.Y. 1929), 31 F.2d 199; *Bank of U.S. v. Planters' Bank of Georgia*, 9 Wheat. 904, 907 (1924); *Coale v. Societe Co-op Suisse des Charbons* (S.D. N.Y. 1921), 21 F.2d 180. Certainly, no foreign governmental immunity of any kind would attach to two private companies, Union Carbide and VCA, which used Electromet of Canada as part of an overall, preexisting conspiracy, to monopolize the vanadium industry.

C. Cases such as Parker v. Brown, 317 U.S. 341 (1943), holding that state action as distinguished from private action does not come under the antitrust laws are not in point.

In their answering briefs, respondents rely on such cases as *Parker v. Brown*, 317 U.S. 341 (1943), *United States v. Rock Royal Co-op*, 307 U.S. 533 (1939), *Olsen v. Smith*, 195 U.S. 332 (1904), and *Okefenokee Rural Elec. Mem. Corp. v. Florida P. & L. Co.* (5 Cir. 1954) 214 F.2d 413, which we respectfully submit are not applicable. Those cases advance the proposition that a legislatively-created monopoly is without the ambit of the antitrust laws and that *state action* as distinguished from private action does not come within the antitrust laws. Petitioners here are not seeking to invalidate any legislation on the ground that it violates the Sherman Act, nor are they seeking to undo the action of a state in creating a monopoly. For example, the *Parker* case was an injunction case seeking to enjoin official state action created by the legislature involving an overall detailed legislative program

adopted by the state. The *Parker* case itself recognizes that even a legislatively created monopoly is not *per se* outside the ambit of the antitrust laws. This Court stated (pp. 351-352):

> "There is no suggestion of a purpose to restrain state action in the Act's legislative history. . . ."
>
> "True, a state does not give immunity to those who violate the Sherman Act by authorizing them to violate it, or by declaring that their action is lawful, [case cited]; and we have no question of the state or its municipality becoming a participant in a private agreement or combination by others for restraint of trade [case cited]. . . ."

In the *Okefenokee* case, the Court found that the validity of the order involved could be attacked only in an action on mandamus, that there was no interstate commerce involved, and that the subject matter was exclusively within the jurisdiction of the administrative board. Furthermore, the later case of *Crammer Co. v. Du Pont* (5 Cir. 1955), 223 F.2d 238, cert. denied, 350 U.S. 848, from the same circuit, in effect explains away the *Okefenokee* case and clearly holds that a violation of the antitrust laws can occur even though the most important element of the conspiracy in attaining its objective is by secretly moving under the guise and protection of the public interest and through the public authorities.

D. Union Carbide and VCA are both liable for all injuries resulting from the overall conspiracy.

Again, this is an action against two private American companies which conspired to monopolize an industry and used a private Canadian corporation which had an agency

agreement with Canada to bring about the demise of the petitioners. There is no evidence in the record that any government authorized Union Carbide and VCA to conspire to monopolize the vanadium industry and to eliminate petitioners, and to insure the complete elimination by cutting off petitioners' right to ship their products into Canada. The elimination was caused by the American conspiracy, by the acts of private companies, by conduct taking place in the United States. VCA and Union Carbide both were members of that overall conspiracy and obviously both are responsible for any and all injuries resulting therefrom. The fact that one member of the conspiracy may have been the active partner in certain phases of the overall conspiracy does not insulate the other member. (*Chattanooga Foundry & Pipe Works v. Atlanta*, 203 U.S. 390 (1906).)

E. The Noerr case holds that the Sherman Act does not control joint action to lobby or to influence the passage of legislation.

As discussed in greater detail in petitioners' opening brief, it is respectfully submitted that the *Noerr* decision is not applicable to the facts of this case and was not intended to apply to the exclusion of competition accomplished under and pursuant to the terms of a conspiracy to monopolize an industry by predatory business tactics, even though part of the conspiracy included the use of the discretionary power to control purchases of vanadium given to one of the conspirator's Canadian subsidiaries by the Canadian government. Such traditional, predatory conduct has always been held to violate the Sherman Act and the *Noerr* decision has not changed this. Here there was an express showing of a classic divi-

sion of the market between respondents as to American production of vanadium and the in fact elimination of Mr. Leir's ability to continue as a competitor in vanadium both as to interstate and foreign commerce.

CONCLUSION

The trial Court committed error in excluding all evidence as to petitioners' elimination from Canada and in rejecting Petitioners' Offer of Proof in this regard. The trial Court clearly committed prejudicial error that cannot be corrected by return to the Ninth Circuit.

For the foregoing reasons petitioners respectfully request that the Court reverse the judgment entered herein and remand the action to the District Court for retrial.

Dated, April 12, 1962.

Respectfully submitted,

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